Math 325: Complex Analysis
Middlebury College, Spring 2017
Frank Swenton

Contact info
- e-mail: fswenton@middlebury.edu
- Office: 504 Warner Hall, x3421

Class
- MWF 10:10–11:00, WNS 507

Office hours
- Monday/Wednesday 2:30–4:30
  or any other time I’m free, preferably by appointment
  (Warner 315 or the third-floor math common room)

Homepage
- http://S17.middlebury.edu/MATH0325A/

Introduction
Welcome to Math 325! In this course, we’ll stir just one more number into the real line, growing it into the much richer and more beautiful mathematical realm that we call the complex plane. After a quick introduction to the basics, we’ll see how our old acquaintances of functions, derivatives, integrals, and power series take on a whole new life in the complex plane; in addition, we’ll become familiar with a number of new mathematical concepts and objects particular to the field of complex analysis.

Text & Class Meetings
Our text for this course will be David Ullrich’s Complex Made Simple, which is pitched as a graduate-level text, so we’ll start by making our way through some of the appendices and filling in the background as necessary; we will cover only part of this text, and the rest will serve to show the way deeper into the subject (e.g., for senior work). Ullrich’s text is written extremely well, and careful reading of the assigned material will be a key part of this course. (If you are aware of my tendency not to use a text for courses when no acceptable text exists, then you know that I’ve chosen this specific text with good reason!)

Text readings will drive our discussion during class, when we will go over important concepts, work through examples and/or proofs, discuss your questions about the material, and flesh out any subtleties of the material that merit further explanation. The text readings will provide the foundation for our class discussions, so it will be crucial that students come to class well-read and prepared with any questions that you have, so that we can use our limited class time as productively as possible—if you have a question, chances are good that the rest of the class would benefit from discussing it, as well!

Examination & Evaluation
There will be two evening examinations during the term, along with final written projects on assigned topics, which will be presented during the last several days of class; we will have, in addition, problems sets and questions on the readings, along with some number of short quizzes or pledged assignments. The honor code will be in effect for all examinations (please see your student handbook for more information).