

Math 361 – Complex Analysis

MWF 9:30 – 10:20
DDS DC: Room 1314

Bill Goldbloom Bloch

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Prerequisites Mathematical maturity. Calculus through infinite series, plus self-discipline. Comfort with calculus in \mathbb{R}^2 and a little linear algebra would be useful, but are not necessary. The textbook is *Complex Analysis* by Theodore W. Gamelin. I expect approximately 7-9 hours of work from you outside of class every week. Math is an inverted pyramid, and if you do not work hard to keep on top of the material, it will crush you. Or impale you. Or at least make you stressed and unhappy.

Two Principles First, your learning is in your head, not mine: You are responsible for own education. (This is a liberating principle.) Second, learning is a continuum that starts before class with the required reading, is enhanced by class interactions, and spirals into the future with Homework, Discussions with Friends and Classmates, and Late Night Musings.

Course Objectives By the end of this course, complex numbers will seem simple and desirable. You will have a solid foundation of complex analysis to build on in other disciplines, such as physics and chemistry. You will be in awe. You will be in a state of religious mystification and ecstasy. You will be able to apply these visions to the world around you.

Homework, Quizzes, etc. There will be a total of 12 homework assignments over the course of the semester, and your two lowest scores will be dropped. They will be hard. You may work together and even hand them in jointly! (Unless I change my mind.) The homework is normally due at 11:59pm, Eastern Time Zone, on days marked on the schedule. (I won't check until the next morning.) **There is no such thing as 'late homework.'** If people straggling in late begins to annoy me, there will be quizzes. Also: no phones. Really.

Exams There will be a midterm and a final. The midterm will be take-home. If I detect cheating, or if I even suspect cheating, the final will be in-class during the week of May 9. **Make-up exams require documentation of extraordinary circumstances.**

Grading Policy Each homework will be graded 0–10, for a total of 100 possible points. Each exam will be graded 0–100. At the end of the term, your total number of points (out of 300) will be added together to give your final grade.

It's important to note that this does not mean that, for example, 270 points and above guarantees an A: I've usually curved the grades, but that's no guarantee for the future. Extra points can be earned in the following fashion: 3 points for catching me in a mathematical or spelling error while I'm using the blackboard; and 5 points for coming to office hours (points given only on first visit). Also, attendance and classroom participation will only raise my opinion of you, which can raise your grade, so ask and answer questions. If you wish to argue about points assigned, you must do it within a week of the return of the work in question. Furthermore, I reserve the right to *lower* your points if I think you are merely haggling.

Honor Code Violations Over the years, I have caught many violations of the Honor Code. The punishment tends to be much worse than the grade received for handing in a bad assignment or test. There has been a surge of cheating incidents in the past few years, and when we uncover them, we respond mercilessly. Your first assignment is reading the Wheaton Honor Code and related materials, then sending me a note acknowledging having read them. Finally, as per student initiative, for all course work, students must write and sign the following: "I have abided by the Wheaton College Honor Code in this work."

Your first homework assignment involves the Honor Code.