

## Course information

- Course: Mathematics 147 MWF 1:00–1:50 SSTR 100
- Prerequisite: Math 140AB or consent of the instructor (if you have had 140A and are taking 140B concurrently, that is acceptable)
- Instructor: Bernard Russo MSTB 263 Office Hours MW 2:30-3:30 or by appointment (a good time for short questions is right after class just outside the classroom)
- There is a link to this course on Russo’s web page: [www.math.uci.edu/~brusso](http://www.math.uci.edu/~brusso)
- Discussion section: TuTh 1:00–1:50 SSTR 103
- Teaching Assistant: P. C. Lin
- Homework: There will be approximately 10-12 assignments (10-20 problems from the text for each assignment) with at least one week notice before the due date.

• Grading:	First midterm	February 3 (Friday of week 4)	20 percent
	Second midterm	March 3 (Friday of week 8)	20 percent
	Final Exam	March 22 (Wednesday 1:30-3:30)	40 percent
	Homework	approximately 12 assignments	20 percent

- Holidays: January 16, February 20
- Text: George Cain “Complex Analysis”, Freely available on the web (see Russo’s web page or go directly to <http://www.math.gatech.edu/cain/winter99/complex.html>)
- Material to be Covered: All of the text
- Catalog description: Rigorous treatment of basic complex analysis: complex numbers, analytic functions, Cauchy integral theory and its consequences (Morera’s Theorem, The Argument Principle, The Fundamental Theorem of Algebra, The Maximum Modulus Principle, Liouville’s Theorem), power series, residue calculus, harmonic functions, conformal mapping. Students are expected to do proofs.
- Math 147 is replacing the old Math 114B, and is intended for mathematics majors. The sequence 114A-147 is acceptable for the specialization in applied mathematics. You cannot take 114A after taking 147.
- Some alternate texts that you may want to look at, in no particular order. There are a great number of such texts at the undergraduate and at the graduate level.

### Undergraduate Level

1. S. Fisher: Complex Variables

2. R. Churchill and J. Brown; Complex Variables and Applications
3. J. Marsden and M. Hoffman, Basic Complex Analysis
4. E. Saff and A. Snider: Fundamentals of Complex Analysis

**Graduate Level**

1. L. Ahlfors; Complex Analysis
2. J. Conway; Functions of one Complex Variable
3. J. Bak and D. Newman; Complex Analysis