

## Math 621 - Complex Variables - Spring 2006

MWF 10:10-11:00 AM LGRT 119

**Instructor:** Eyal Markman

**Tentative Office hours:** Monday 12:15-1:30pm, Wednesday 12:45-2:30pm, and by appointment. (Please check the web page for any updates).

**Office:** LGRT 1242

**Office Phone:** 545-2788

**E-mail:** markman@math.umass.edu

**Course web page:** <http://www.math.umass.edu/~markman/>

**Prerequisites:** Advanced Calculus. Students are expected to have a working knowledge of complex numbers and functions at the level of M421, for example.

**Text:** There will not be a single textbook. The main reference will be:  
*Complex Analysis*, by Serge Lang, Fourth Edition, Springer-Verlag, 1999.

Another text to be used:

*Complex Analysis*, by Lars V. Ahlfors, 3rd edition McGraw-Hill 1979.

**Syllabus:** The Basic Theory: Analytic functions, Complex integration, Calculus of residues, and Conformal mappings (Chapters 1 through 8 in Lang; or Chapters 1 through 4 in Ahlfors). If time permits, we will include additional topics such as: The Riemann Mapping Theorem (Chapter 10 in Lang) and/or Elliptic Functions.

**Homework:** Will be assigned weekly and graded.

**Exams:**

Midterm Exam: Thursday, March 30, 5-7 PM (tentative date),

Final Exam: Date to be determined.

**Grades :**

Homework & class participation—30%

Midterm exam—30%

Final exam—40%