

## Math 621 - Complex Variables - Spring 2013

MWF 1:25-2:15 PM LGRT 1114

**Instructor:** Eyal Markman

**Tentative Office hours:** Monday 5:00-6:00pm, Wednesday 3:00-4:00pm, and by appointment. (Please check the web page for any updates).

**Office:** LGRT 1223G

**Office Phone:** 545-2788

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

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

**Prerequisites:** Advanced Calculus at the level of Math 425 and 523. 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). 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: Wednesday, March 13, 5-7 PM,

Final Exam: Date to be determined.

**Grades :**

Homework & class participation—30%

Midterm exam—30%

Final exam—40%