

AMS-503

Applied Complex Analysis

Class Time and Location:

MWF, 09:35 – 10:30 am, Physics P123

Course Instructor: Hyunkyung Lim

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Office: Math Tower Room 1-125

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Office hours: Monday and Wednesday, 1:00 – 2:00 PM, or by appointment.

Course web page:

<http://www.ams.sunysb.edu/~hyulim/Teaching/AMS503/>

Textbook: Basic Complex Analysis, Third Edition

Jerrold E. Marsden, Michael J. Hoffman

ISBN: 0-7167-2877-X

Course description: A study of those concepts and techniques in complex function theory that are of interest for their applications. Application is made to problems in heat conduction, potential theory, electrostatics, and hydrodynamics.

Topics:

1. Analytic Functions
2. Cauchy's Theorem
3. Series Representation of Analytic Functions
4. Calculus of Residues
5. Conformal Mappings

Grading: Homework assignments: 30%

Midterm exam (in class): 30%

Final Exam (in class): 40%

Disabilities Act:

If you have a physical, psychological, medical or learning disability that may impact your course work, please contact Disability Support Services, ECC (Educational Communications Center) Building, room 128, (631) 632-6748. They will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential.