



MATH 103A: Complex Analysis

Summer 2016

(This document's location
is: http://tamanoi.math.ucsc.edu/tamanoi/Math103A_Summer_2016.htm)

DRC accommodation: If you qualify for classroom accommodations because of a disability, please submit your Accommodation Authorization Letter from the Disability Resource Center (DRC) to me as soon as possible, preferably within the first week of the Summer Session. Contact DRC by phone at [831-459-2089](tel:831-459-2089) or by email at drc@ucsc.edu for more information.

Drop Deadline: August 1
Withdrawal Deadline: August 12



Instructor

Professor Hirotaka Tamanoi

Office: McHenry 4180
Hours: Monday 2:00PM-4:00PM
Tuesday 2:00PM-4:00PM
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Lecture

Room: Physical Sciences 140
MW: 9:00AM -- 12:30AM

No Discussion Sections

Textbook

Complex Variables and Applications, 9th edition

By James Brown and Ruel Churchill

McGraw-Hill

Course Description

Complex analysis is a jewel of classical mathematics. We will cover at least up to chapter 7 of the textbook, culminating in the application of residues to computation of integrals.

Homework, Quiz, Exams, and Course Grade

Homework: Homework assignments are given after every class and posted on this course web page. See below. They will not be graded.

Quiz: There will be half an hour quizzes on Wednesday classes during 2nd, 3rd, 4th week. These quizzes replace the midterm.

Course grade will be determined by the following (tentative) scale:

Quizzes ~40% Final ~60%

This grade distribution is tentative. It will be adjusted at the end of the summer session II according to difficulty of quizzes and the final exam. All scores are available at the eCommons course site.

Exam Schedule

Final Exam: Wednesday August 24, in class, cumulative.

Lecture Schedule

The following is a tentative schedule.

Week 1 (July 25, 27): Chapter 1 and Chapter 2

Week 2 (August 1, 3): Chapter 3, Chapter 4, Quiz 1 on 8/3 in class.

Week 3 (August 8, 10): Chapter 4, Chapter 5, Quiz 2 on 8/10 in class

Week 4 (August 15, 17): Chapter 6, Chapter 7, Quiz 3 on 8/17 in class

Week 5 (August 22, 24): Chapter 7. **Final Exam: Wednesday August 24** in class, cumulative.

Assignments

Homework problems are posted at the course web site below.

Section

Lecture 1: Section 2: 1,2. **Section 3:** 1. **Section 5:** 1ab, 4, 5, 8, 9. **Section 6:** 1, 2, 10, 13, 15. **Section 9:** 1, 2, 4, 5, 9, 10, 11. **Section 11:** 1, 2, 4, 5, 7. **Section 12:** 1, 4.

Lecture 2: Section 14: 1, 2, 3, 9. **Section 18:** 1, 3, 5, 7. **Section 20:** 2, 3, 4, 6, 7, 8. **Section 24:** 1, 2, 3, 8. **Section 26:** 1, 2.

Lecture 3: Section 30: 1,2,3,8,10. **Section 33:** 2,5,6,7,8. **Section 36:** 1,2. **Section 38:** 1,2,3,4,7. **Section 39:** 1,2,3,4. **Section 40:** 2,3,4.

Lecture 4: Section 42: 1, 2, 3, 4. **Section 43:** 1, 5. **Section 46:** 1, 2, 3, 4, 10, 13.

Lecture 5: Section 47: 1, 2, 4, 6. **Section 49:** 1, 2, 3. **Section 53:** 1, 2, 4, 5. **Section 57:** 1, 2, 3, 4, 5, 6.

Lecture 6: Section 59: 1, 2, 4, 5, 7. **Section 61:** 4.

Lecture 7: Section 65: 1, 2, 3, 5, 7, 8, 9, 10, 11. **Section 68:** 1, 2, 3, 4, 5. **Section 72:** 1, 2, 3, 4, 6. **Section 73:** 1, 2, 5, 6, 9. **Section 77:** 1, 2, 4, 7. **Section 79:** 1, 2. **Section 81:** 1, 3, 4, 5, 6.

Lecture 8: Section 83: 1, 5, 6. **Section 86:** 2, 3, 5, 8, 9.

Lecture 9: Section 88: 2, 5, 7, 12. **Section 91:** 1, 2, 3, 5. **Section 92:** 1, 2, 3, 6.
