

3450:425/525 Complex Variables Fall 2020

Instructor: Dr. C. B. Clemons

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Text: *Complex Variables with Applications* 9th edition, by James Ward Brown & Ruel V. Churchill

Learning Outcomes.

- Communicate mathematical results through the proper use of mathematical notation and words
- Perform basic computations that involve complex numbers, analytic functions, integrals, series and residues.
- Construct proofs involving complex numbers, analytic functions, integrals, series and residues.

Course Policies.

1. **Course grades** are determined by:

midterm	100 pts	A	90-100%
homework	100 pts	B	80-89%
final	135 pts	C	70-79%
		D	60-69%
		F	0-59%

Total 335 pts

2. **Plus/Minus** grades are given in each grading range at the professor's.
3. **Prerequisite** for this course is a grade of C- or better in 3450-223 Analytical Geometry-Calculus III (or appropriate placement).
4. **Graduate Students** Graduate students will be assessed differently than undergraduate students by several extra questions on the mid-term and final exam.
5. **Make-Up tests** are given at the professor's discretion and only with a valid excuse and prior notice of absence.
6. **Homeworks** will be assigned for each section, and are for a) re-inforcing the skills and techniques presented; b) building necessary speed, so that you do better on exams, and c) because some of the problems on exams could well be selected from the assigned problems. Each problem will be graded 0-5 points. At the end of the semester, your homework grade score will be based on the best 80-90% of the problems graded. No late homework will be accepted. All work submitted must be your own. Presentation does count.
7. **Drop/Withdrawal Policy:** Drops: New and Continuing students may DROP a course via ZipLine through September 6th. Courses dropped by the end of the day on September 6th will not appear on a student's transcript. No signatures are required to drop a course.

Withdrawals: New and Continuing students may withdraw from a course between September 6th and October 11th via ZipLine. A WD will appear on the student's transcript. No signatures are required to withdraw from a course.

8. **University Regulations:** All University regulations, including academic dishonesty, sexual harassment and withdrawal from this course apply. Please refer to The University of Akron's Dishonesty Policies and Sexual Harassment Publications for more details.

TENTATIVE OUTLINE

Chapter	Topic
1	Complex Numbers
2	Analytic Functions
3	Elementary Functions
4	Integrals
	MIDTERM
5	Series
6	Residues and Poles
7	Applications of Residues
8	Mappings
	Other elected topics
	Final Examination