

Sul Ross State University
Course Syllabus
MATH 4360-001-Complex Variables
Fall 2014

Instructor: Dr. Angela Brown

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Office Hours: 10-11 MWF, 3-4 T, 2-4 R, others by appointment

Time and Place of Class Meetings: TTh 11:00-12:15 ACR 206

Course Prerequisites: Math 3415(2415) or consent of instructor

Mathematics Program Learning Objectives: The graduating student should be able to

- Apply knowledge of basic mathematics principles.
- Identify and provide valid proofs or solutions for theorems or problems.
- Recognize and dispute invalid mathematical statements by using counter-examples.

Course Objectives: By the end of the course, the successful student will be able to:

- Apply the basic principles of functions of complex variables
- Evaluate path integrals in the complex plane
- Compare and contrast between real and complex variable calculus
- Apply complex variable techniques to summation of series
- Apply complex variable techniques to integration.

Required Textbooks: *A First Course in Complex Analysis with Applications*, 3rd ed, Zill and Shanahan, 2009.
You can purchase the online version of the text at www.jbpub.com

Other Equipment Needed: paper and pencils.

Grading Scale: 90-100 A, 80-89 B, 70-79 C, 60-69 D, 59-Below F

Grading Policy: The grade weighting will be as follows:

Homework/In Class Assignments: 30%

Exams:40%

Final Exam: 30%

Homework/in Class Assignments: Homework and/or in class assignments will be assigned daily and homework will be taken up at the beginning of class on Tuesdays. Homework will be graded on completion and accuracy. Copying answers out of the back of the book is plagiarism and will be prosecuted.

Exams:

No make-up exams will be given. If there is a valid reason for missing an exam, then the grade for the missed exam will be replaced by the grade on the final exam. Otherwise, a missed exam will be a zero. Exams will be closed notes, closed book, and no calculator will be allowed. Any restroom breaks need to be taken before an exam starts. You cannot leave the classroom in the middle of an exam under any circumstances.

Final Exam Date: Tuesday, December 9 at 10:15 am

Attendance Policy: Students are expected to attend every class. If class must be missed, the student is expected to get the notes from a classmate, and to check with me or on Blackboard for announcements and updated assignments.

Students are expected to arrive to class on time. If a student is perpetually late, they will be asked to not attend class unless they arrive on time. If tardiness becomes a problem for the class as a whole, people who arrive late will not be permitted to enter the class. If this stricter policy becomes necessary, there will be an announcement made in class.

It is policy of the university to drop a student with a grade of “F” if 9 hours or more of class are missed. For this course that would be 6 or more class sessions missed.

Cell Phone Policy: Cell phones are not allowed in class. They can not be used as calculators on any assignment. Any phone ringing during class will be taken up until the end of class. If a phone rings during a test or quiz, the student will forfeit their right to finish said test or quiz.

Americans With Disabilities Act: Sul Ross State University is committed to equal access in compliance with the Americans With Disabilities Act of 1973. As an instructor I am required to give students reasonable accommodations in each course. It is the student’s responsibility to initiate a request for accessibility services. Contact Mary Schwartz, the ADA Coordinator in Counseling and Accessibility Services Ferguson Hall, Room 112. Her phone number is 432-837-8203 or you can email her at mschwartz@sulross.edu.

Important Dates:

August 25	First Day of Classes
August 28	Last Day for Late Registration and Schedule Changes
September 10	12th Class Day
November 14	Last Day to Withdrawal from University or Drop Classes with a Grade of “W” (by 4 pm)
November 26-28	Thanksgiving Holiday
December 3	Last Day of Classes
December 4-5	Dead Days
December 8-11	Final Exams
December 13	Commencement

Tentative Schedule-Subject to Change

	Tuesday		Thursday
Aug 26	Complex Numbers Properties	Aug. 28	Complex Plane
Sept. 2	Polar Forms	Sept. 4	Powers and Roots
Sept. 9	Sets of Points	Sept. 11	Complex Functions
Sept. 16	Mappings	Sept. 18	Linear Maps
Sept. 23	Limits and Continuity	Sept. 25	Exam 1
Sept. 30	Differentiable and Analytic	Oct. 2	Cauchy Riemann Eqns
Oct. 7	Harmonic Functions	Oct. 9	Exp and Log Functions
Oct. 14	Complex Powers	Oct. 16	Trig Functions
Oct. 21	Real Integrals	Oct. 23	Exam 2
Oct. 28	Complex Integrals	Oct. 30	Cauchy Goursat
Nov. 4	Indepence of Paths	Nov. 6	Cauchy's Integral Formula
Nov. 11	Sequences and Series	Nov. 13	Taylor Series
Nov. 18	Laurent Series	Nov. 20	Zeros and Poles
Nov. 25	Residues	Nov. 27	Thanksgiving Holiday
Dec. 3	Conformal Mappings		