

**Salem State College**  
**Mathematics Department**  
Spring 2008

**Course:** Mat 409: Complex Variables  
**Section:** 01  
**Room:** SB 311  
**Schedule:** TuTh 9:30 — 10:45  
**Instructor:** L. Pedro Poitevin, Assistant Professor  
**Office:** Sullivan Building 308B  
**Office hours:** TuTh 11:00 — 12:30; WF 12:15 — 1:30  
**Office phone number:** (978) 542-6995  
**e-Mail:** lpoitevin@salemstate.edu

**Course description:** A rigorous introduction to mathematical analysis on the complex plane.

**Course goals:**

1. To provide students with a working knowledge of the basic tools of complex analysis.
2. To develop students' dexterity in the manipulation of functions of complex variables.
3. To develop students' proof-writing skills.

**Learning objectives:** A student who passes this course should be able to:

1. Demonstrate a solid understanding of the algebra of complex numbers.
2. Use polar coordinates expertly.
3. Calculate limits of functions of a complex variable.
4. Differentiate analytic functions.
5. Calculate contour integrals of analytic functions.
6. Understand and correctly formulate the major theorems of complex analysis.

**Attendance policy:** An *advance notice* for an absence to class is typically an e-mail sent to me 12 hours or more in advance of the class meeting the student will not attend. *Permission for absence* is typically an e-mail from me to the student to acknowledge receipt of an advance notice. *Excused absences* are absences for which I have advance notice, and for which the student has a permission for absence. Excused absences, if not excessive in number, will not negatively affect a student's grade. An unexcused absence during a day when an assignment, quiz, or exam is due will result in a grade of zero for the assignment, quiz, or exam. I reserve the right to penalize students with more than three unexcused absences by reducing their final grade by one letter grade. In the event that I wish to exercise this right, notice will be given to students in advance. **The student is responsible for completing all course requirements and for keeping up with all that goes on in the course (whether or not the student is in attendance).**

**Textbook:** Brown and Churchill, *Complex Variables and Applications*, McGraw-Hill, 7th ed. (Required)

**Class format:** This will be a standard lecture/discussion class. Often the instructor will spend some class time explaining the basic concepts of the course, and occasionally students will gather in groups assigned by the instructor and discussions of the material will take place.

**Late homework:** There will be very strict deadlines for homework. Absolutely no late submissions will be accepted.

**Exams:**

Exam 1	<i>Tentatively</i> Tuesday, February 19
Exam 2	<i>Tentatively</i> Thursday, March 27
Final	Monday, May 5, 2:00 - 4:00

**Grading scheme:** I reserve the right to change the following grading scheme, but it will very likely stand:

Homework	50 %
Exam 1	10 %
Exam 2	10 %
Final	30 %

**Statement on equality of access:** Salem State College is committed to providing equal access to educational experience for all students in compliance with Section 504 of The Rehabilitation Act and The Americans with Disabilities Act and to providing all reasonable academic accommodations, aids and adjustments. Any student who has a documented disability should speak with the instructor immediately. Students with disabilities who have not previously done so should provide documentation to and schedule an appointment with the Office for Students with Disabilities and obtain appropriate services.

**Schedule:**

Date	Sections
01/15	1, 2, 3
01/17	4, 5, 6
01/22	7, 8, 9
01/24	10, 11, 12
01/29	13, 14, 15
01/31	16, 17, 18
02/05	19, 20, 21
02/07	22, 23, 24
02/12	25, 26, 27
02/14	28, 29, 30
02/19	Exam 1
02/21	31, 32, 32
02/26	34, 35, 36
02/28	37, 38, 39
03/04	40, 41, 42
03/06	43, 44, 45
03/18	46, 47, 48
03/20	49, 50, 51
03/25	52, 53, 54
03/27	Exam 2
04/01	55, 56, 57
04/03	58, 59, 60
04/08	61, 62, 63
04/10	64, 65, 66
04/15	67, 68, 69
04/17	70, 71, 72
04/22	73, 74, 75
04/24	76, 77, 78
04/29	79, 80
05/05	Final Exam