

Fall 2013- Math 413: Complex Analysis

MWF 7:25-8:30 in RS 13

Instructor: Dr. Catherine Crockett

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Office hours: MWF 11-12, MW 1-2:30 and TTH 3-4 or by appointment

Textbook: *Complex Analysis*, Joseph Bak and Donald J. Newman, 2nd Ed., Springer

Prerequisite: Math 274 (calculus III)

Course Description: Complex numbers, analytic functions, integration, series, contour integration, residues and conformal maps.

Class Learning Outcomes:

Students will be able to demonstrate facility with analytical concepts.

Students will be able to apply their mathematical knowledge to solve problems.

Attendance:

Attendance is expected at each class session. In the event of an absence you are responsible for the material covered in class and the assignments given that day.

Regular and punctual attendance at all classes in which a student is registered is considered essential to optimum academic achievement. Therefore, regular attendance and participation in each course are minimal requirements to be met. There are no allowed or excused absences except when absences are necessitated by certain university-sponsored activities and are approved in writing by the Provost. Whenever the number of accumulated absences in a class, for any cause, exceeds ten percent of the total number of class meetings, the faculty member has the option of filing a written report to the Vice Provost for Academic Administration which may result in de-enrollment, pending any resolution of the excessive absences between the faculty member and the student...If the date of de-enrollment is past the last date to withdraw from a class, the student will be assigned a grade of W or WF (no grade). There are no refunds for courses where a de-enrollment was processed." (see catalog for full text)

Class Enrollment:

It is the student's responsibility to maintain his/her class schedule. Should the need arise to drop this course (personal emergencies, poor performance, etc.), the student has the responsibility to follow through (provided the drop date meets the stated calendar deadline established by the university), not the instructor. Simply ceasing to attend this course or failing to follow through to arrange for a change of registration (drop/add) may easily result in a grade of F on the official transcript.

Academic Accommodations:

While all students are expected to meet the minimum academic standards for completion of this course as established by the instructor, students with disabilities may require academic accommodations. At Point Loma Nazarene University, students requesting academic accommodations must file

documentation with the Disability Resource Center (DRC), located in the Bond Academic Center. Once the student files documentation, the Disability Resource Center will contact the student's instructors and provide written recommendations for reasonable and appropriate accommodations to meet the individual needs of the student. This policy assists the university in its commitment to full compliance with Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities (ADA) Act of 1990, and ADA Amendments Act of 2008, all of which prohibit discrimination against students with disabilities and guarantees all qualified students equal access to and benefits of PLNU programs and activities.

Students with learning disabilities who may need accommodations should discuss options with the instructor during the first two weeks of class.

Academic Honesty:

The Point Loma Nazarene University community holds the highest standards of honesty and integrity in all aspects of university life. Academic honesty and integrity are strong values among faculty and students alike. Any violation of the university's commitment is a serious affront to the very nature of Point Loma's mission and purpose.

Academic dishonesty is the act of presenting information, ideas, and/or concepts as one's own when in reality they are the results of another person's creativity and effort. Such acts include plagiarism, copying of class assignments, and copying or other fraudulent behavior on examinations. For more details on PLNU's policy go to:

<http://www.pointloma.edu/experience/academics/catalogs/undergraduate-catalog/point-loma-education/academic-policies>

A student who is caught cheating on any item of work will receive a zero on that item and may receive an "F" for the semester. See the PLNU Catalog for a further explanation of the PLNU procedures for academic dishonesty.

Final Exam: Date and Time

The final exam date and time is set by the university at the beginning of the semester and may not be changed by the instructor. Only in the case that a student is required to take three exams during the same day of finals week is an instructor authorized to change the exam date and time for that particular student.

Grading:

Your grade for the course is based on:

Homework Exercises	300 points
2 Exams	400 points (200 points each)
A comprehensive final	300 points
Total	1000 points

Grade scale: Grades are based on the number of points accumulated throughout the course. Approximate minimal percentages required to obtain a given grade are:

Grading Scale in percentages				
	A	B	C	D
+		(87.5, 90)	(77.5, 80)	(67.5, 70)
	[92.5, 100]	[82.5, 87.5]	[72.5, 77.5]	[62.5, 67.5]
-	[90, 92.5)	[80, 82.5)	[70, 72.5)	[60, 62.5)

Homework: Homework will be assigned every class meeting. A homework assignment is late if it is not received at the beginning of class on the due date. No late homework will be accepted except by prior arrangement or with documented emergency. The object of the homework is to learn how to do the problems- this means I expect to see calculations using correct terminology and notation. A random selection (the same for all people) of the problems will be graded on any homework assignment.

Exams and Final: Examinations and the Final Examination will include problems and questions over material assigned in the text, readings and handouts, as well as material presented in class. No examination shall be missed without prior consent by me or a well documented emergency beyond your control. A score of zero will be assigned for an examination that is missed without prior consent or a well documented emergency beyond your control. The examination schedule is included in the daily schedule.

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Please note: The Final Exam is COMPREHENSIVE. December 20, (Friday) at 7:30-10:00

Tips for this class:

- Read every night. You will have reading every night. Reading math is slow and usually takes reading more than once.
- When you read- read with a pencil. Fill in the details by the author. If the author says “and this follows from the definition...”- check it. Be sure that **you** understand how it follows from the definition.
- Work lots of problems. Please note it is normal to not be able to do every problem correct on the first attempt.
- Work in groups. You will learn a lot if you have to explain your solution to someone else.
- If you have a question- ASK. Most likely other students have that same question.

Tentative Schedule: While topic order may change- the test dates will not.

Week	Monday	Wednesday	Friday
1	9/2 No Class	9/4 Introduction, 1.1	9/6 1.1 & 1.2
2	9/9 1.2 & 1.3	9/11 1.3& 1.4	9/13 1.4 & 2.1
3	9/16 2.1 & 2.2	9/18 2.2 & 2.3	9/20 2.3
4	9/23 3.1	9/25 3.1 & 3.2	9/27 3.2
5	9/30 4.1	10/1 4.1 & 4.2	10/3 4.2
6	10/7 Exam #1	10/9 5.1	10/11 5.2
7	10/14 6.1	10/16 6.1 & 6.2	10/18 6.3
8	10/21 6.3	10/23 7.1	10/25 No class Fall Break
9	10/28 7.2	10/30 7.2	11/1 8.1
10	11/4 8.1	11/6 8.2	11/8 9.1
11	11/11 9.1	11/13 9.2	11/15 10.1
12	11/18 10.1& 10.2	11/20 10.2	11/22 11.1
13	11/25 Exam #2	11/27 No class Thanksgiving	11/29 No Class Thanksgiving
14	12/2 11.2	12/4 11.2	12/6 13.1
15	12/9 13.1	12/11 13.2	12/13 13.2
Final Exams Week	12/16	12/18	12/20 Final exam 7:30-10:00