Point Loma Nazarene University

Mathematical, Information and Computer Science

MTH413-1	Complex Analysis
Class Time	T R 9:30 am – 10:45 am
Location	RS 15
Instructor	Jesús Jiménez
Office	RS 218
Phone	849-2634
Email	jjimenez@pointloma.edu
Office Hours	MWF 12:00 -1:00 pm, 2:30 – 4:00 pm, TH 11:00 am – 12:00 pm
Textbook	Basic Complex Analysis
Author	Marsden / Hoffman
Exam 1	**10/04/2011**
Exam 2	**11/15/2011**
Final Exam	**Tuesday 12/13/2011 (10:30 am – 12:30 pm)**
Course Description	Complex numbers, analytic functions, integration, series, contour integration, residues and conformal maps.

Grade Distribution

Two partial exams @ 200 points each	400	points
Final Exam	300	points
Homework	300	points
Total	1000	points

Grading Scale

	A	B	C	D	F
+		>86%	>76%	>66%	<59%
	>90%	>83%	>73%	>63%	
--	>88%	>80%	>70%	≥59%	

Course Requirements

Co-requisites
MTH274 Calculus III

Homework

Homework will be assigned during the week and it will be collected the following Wednesday.

Final Exam

The Final Exam is a **COMPREHENSIVE** examination.

Resources

Library, Computer Lab

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 ACCOMADATIONS
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.

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.

CLASS LEARNING OUTCOMES FOR MTH413 (Complex Analysis)
Students will be comfortable using calculus and technology to solve problems.

- Students will be able to apply their technical knowledge to solve problems.

PERFORMANCE

EXCELLENT (A GRADE)
- initiates information relative to topics discussed
- accurately exhibits knowledge of assignment content
- demonstrates excellent listening by remaining on the "same page" as the rest of the class as demonstrated by comments
- brings up questions that need to be further explored
- clarified points that others may not understand
- draws upon practical experience or personal opinion, as appropriate
- offers relevant/succinct input to class
- actively participates in simulations and classroom exercises
- demonstrates ability to apply, analyze, evaluate, and synthesize course material
- prepares all assignments on time, thoughtfully

GOOD (B GRADE)
- regularly participates in discussions
- shares relevant information
- gives feedback to classroom discussions
- consistently demonstrates knowledge of reading assignments
- demonstrates ability to analyze/apply course material
- demonstrates willingness to attempt to answer questions
- prepares most assignments on time with some thoughtfulness

FAIR (C GRADE)
- participates in group discussion when solicited
- demonstrates some knowledge of course material
- offers clear, concise information relative to class assignment
- offers input, but tends to reiterate the intuitive
- attends class regularly
- prepares most assignments on time with some thoughtfulness

POOR (D GRADE)
- Occasional input, often irrelevant, unrelated to topic or fails to participate, even when specifically asked (in large/small group discussion)
- reluctant to share information
- does not follow the flow of ideas
- drains energy from the class
- behaves towards others in a disruptive fashion, for example: sarcastic comments aimed at others who are attempting to participate
- does not attend class regularly
- fails to prepare assignments on time or with thought

By David Bowen, American Graduate School of Management
Texas A & M University

Tuesday	Thursday
8/30/2011	9/1/2011 1.1 and 1.2 Introduction to and properties of complex numbers
9/6/2011 1.3 Some elementary functions	9/8/2011 1.4 Continuous fuctions
9/13/2011 1.4 Continuous fuctions	9/15/2011 1.5 Basic properties of analytic functions
9/20/2011 1.5 Basic properties of analytic functions	9/22/2011 1.6 Differentiation of the elementary functions
9/27/2011 2.1 Contour integrals	9/29/2011 2.2 Cauchy's theorme -- A first look
10/4/2011 **Exam 1 (Sections 1.1 - 1.6)**	10/6/2011 2.2 Cauchy's theorme -- A first look
10/11/2011 2.3 A closer look at Cauchy's theorem	10/13/2011 2.3 A closer look at Cauchy's theorem
10/18/2011 2.4 Cauchy's integral formula	10/20/2011 2.4 Cauchy's integral formula
10/25/2011 2.5 Maximum modulus theorem	10/27/2011 2.5 Maximum modulus theorem
11/1/2011 3.1 Convergent series of analytic functions	11/3/2011 3.2 Power series and Taylor's theorem
11/8/2011 3.3 Laurent series and classification of singularities	11/10/2011 4.1 Calculus of residues
11/15/2011 **Exam 2 (Sections 2.1 - 3.3)**	11/17/2011 4.2 Residue theorem
11/22/2011 4.2 Residue theorem	11/24/2011 **Thanksgiving**
11/29/2011 4.3 Evaluation of definite integrals	12/1/2011 5.1 Basic theory of conformal mappings
12/6/2011 5.2 Fractional linear transfromations	12/8/2011 5.2 Fractional linear transfromations
12/13/2011 **Final Exam (10:30 am - 12:30 pm)**	12/15/2011