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M 472.01: Introduction to Complex Analysis

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Syllabus for M 472, Spring 2018
Introduction to Complex Analysis

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Meeting Time: MTWF 11:00 - 11:50
Location: Math 312.
Office Hours: Monday, Wednesday 2:00-3:00; Tuesday, 3:00 - 4:00; by appointment.

Text: *Basic Complex Analysis, Third Edition,* Marsden and Hoffman, W. H. Freeman.

Course Description and Learning Outcomes

This course covers the basic theory of functions of one complex variable. It also serves as a good first course in analysis. This class can be taken for undergraduate or graduate credit.

More specifically, the goals for this course are:

(1) to learn the basics of complex analysis (definitions, terminology, concepts, techniques, methods)
(2) to learn different ways in which analyticity can be defined.
(3) to understand Cauchys theorem, integral formula, and their applications
(4) to be able to evaluate real integrals by using complex analytic methods.
(5) to be able to write a clear proof involving above items.

Assessment

Homework: 25%

Written In-Class Exams: 30%

Take-Home Exams: 20%

Final Exam: 25$

Homework: Assignments will be made from each section. Some assigned problems (the most routine) will not be collected, whereas others will be. Also, each week, one problem will be singled out as the problem that is to be written up especially nicely and graded particularly for communication. For these, you should use some word-processing program in which you can typeset equations. Latex is, of course, the preferred option

Written Exams. We will have two mid-term exams and a cumulative final exam. The mid-term exams will have both a written portion and a short take-home portion. The mid-term exam dates are Wednesday, February 28 and Wednesday, April 18.

Students with Disabilities

Students with disabilities may request reasonable modifications by contacting me. The University of Montana assures equal access to instruction for students with disabilities in collaboration with instructors and Disability Services for Students, which is located in Lommasson Center 154. The University does not permit fundamental alterations of academic standards or retroactive modifications.

Academic Misconduct

All students need to be familiar with the Student Conduct Code. You can find it in the "A to Z Index" on UM's home page.

All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University.

Important Dates

Feb. 19 (Monday): No class – Presidents' Day

Feb. 28 (Wednesday): Exam i

Mar. 26 – Mar. 30 (Monday – Friday): Spring Break

April 18 (Wednesday): Exam 2

May 10 (Thursday): Final Exam 10:10 – 12:10