
Syllabus

Instructor: Dr. Erwin Miñana-Díaz
Office: Hume Hall 317
Office hours: M W F 9:00-10:00 AM, or by appointment
Telephone: (662) 915-1204
Email: minadiaz@olemiss.edu

Course Information


Time/Place: Tuesday-Thursday, 11:00 AM - 12:15 PM, Hume Hall 331

Course description

This course is the second part of a two-semester course in complex function theory. The first part followed the same book, covering the material up to Section 3 of Chapter V. The requirements for this second half are a good understanding of the topology of the complex plane, algebra of complex numbers, definitions and properties of the elementary functions, differentiability, definition and basic properties of analytic functions, and a good understanding of complex integration along curves. We will cover the last portion of Chapter V about branches of logarithms and roots of functions, sequences and series of analytic functions (Ch. VII), isolated singularities of analytic functions (Ch. VIII) and basic theory of conformal maps (Chap IX, Sections 1 to 3). We shall try to cover some topics about infinite products and analytic continuation (Ch. X).

Course learning objectives

The aim of the course is to prepare the student well for an independent study of more advanced topics as well as for initiating research in any field with a complex analysis background. This is a theoretically oriented course, with a strong emphasis in proving results. The material will be covered thoroughly and rigorously. By the end of the course, the successful student should have improved his/her mathematical skills and maturity to start reading original papers and advanced books on the subject.

The course stresses individual learning through weekly homework assignments, each containing problems that require the student to have a true comprehension of the material. Some of these problems will be challenging, so that an independent search in the literature is encouraged.

Attendance Policy

Attendance is mandatory.

Homework

Doing the homework is vital for a true comprehension of the material and doing well in this course. However, the homework will not contribute to your grade. I strongly encourage you to attend office hours to discuss your homework solutions.

Tests, final exam and grades

There will be two tests, each worth 100 points. The final exam is comprehensive and worth 200 points. Thus, your maximum possible score is 400 points, and your grade will be determined according to the following scale:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A</td>
<td>93%</td>
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<tr>
<td>A-</td>
<td>90%</td>
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<tr>
<td>B+</td>
<td>87%</td>
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<tr>
<td>B</td>
<td>83%</td>
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<tr>
<td>B-</td>
<td>80%</td>
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<tr>
<td>C+</td>
<td>77%</td>
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<td>C</td>
<td>70%</td>
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<tr>
<td>D</td>
<td>60%</td>
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<tr>
<td>F</td>
<td>below 60%</td>
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Test 1 on Tuesday, February 23
Test 2 on Thursday, April 7
Final Exam on Tuesday, May 10 at Noon.

Academic needs

It is the responsibility of any student with a disability who requests a reasonable accommodation to contact the Office of Student Disability Services (915-7128). Contact will then be made by that office through the student to the instructor of this class. The instructor will then work with the student so that a reasonable accommodation of any disability can be made.
Withdrawal deadline

Withdrawal deadline for the 2016 Spring Semester is Friday, March 4. After the Course withdrawal deadline, courses dropped will be recorded on University records and the W grade will be recorded if the student is not failing the course at the time of withdrawal; otherwise the grade recorded will be F. After the course withdrawal deadline, a student may drop a course only in cases of extreme and unavoidable emergency as determined by the academic dean; dropping a course after the deadline will not be permitted because of dissatisfaction over an expected grade or because the student is changing his/her major.