

MATH 411: Functions of a Complex Variable

Syllabus for the Spring of 2019

Instructor: Prof. Flavia Colonna

Office: Room 4215, Exploratory Hall

Phone: (703)993-1465

E-mail: fcolonna@gmu.edu

Homepage: <http://mason.gmu.edu/~fcolonna/>

Office Hours: MW 10:30 a.m.-11:50 a.m., or by appointment.

Prerequisite: MATH 214 or 216.

Textbook: J. E. Marsden, M. J. Hoffman, *Basic Complex Analysis*, 3rd ed., Freeman Pub., 1999.

Material to be covered: Chapter 1 through chapter 5. Topics include analytic functions and their series representation, Cauchy's Theorem, Laurent series and classification of singularities, calculus of residues, conformal mappings and their applications.

Exams: There will be two midterms scheduled on Wed. Feb. 27 and Wed. April 3, and a comprehensive final exam scheduled on Mon. May 13, 7:30 a.m. - 10:15 a.m.

Homework: Homework will be collected every other week. Although not all of it will be graded, you are expected to solve all assigned problems. The problems labeled with a bullet will count extra. Even when you cannot solve a problem, your effort will be taken into account in the grading process.

Grading Policy: The final grade will be calculated as follows:

Midterms: 25% each

Homework: 15%

Attendance and class participation: 5%

Final exam: 30%

Make-Up policy: No make-up tests will be granted under any circumstance after the date. If you cannot take a test on a certain date for compelling reasons, you can request to take it early but only you give me a legitimate excuse and inform me several days in advance. If you miss a midterm for reasons beyond your control (e.g. sudden sickness, accident), the final exam will count 50% of the final grade and the other midterm 30%.

Honor code: You are expected to abide by the GMU Honor Code. Unless otherwise specified, all tests and quizzes will be closed book.

Attendance: Each student is expected to come to class regularly. I will keep a record of students' attendance.

Grading Scale: 90-100: A, 80-89: B, 70-79: C, 60-69: D, < 60: F. The grades A-,B+,B-, and C+ will be assigned in border line situations.

Homework Assignments

Section	Problems
1.1	1-9(odd),15,17,19
1.2	1-9(odd),14,15,16,21,23,25
1.3	1-9(odd),12,13,16(a,c),21,25,29,31
1.4	1,3,4,7,8,9,14,15,23
1.5	1(b,c),3(b,c),7,11,13,14,15,18(a,b,c),19,21,24,26,27
1.6	1,4,7,8,9(a),10(a),11
2.1	2,3,7,9,11,13,15
2.2	1,3,5,6,9,11
2.3	1,3,7,10
2.4	2,3,5(a),7,8,11,13(a,c),15,16,19
2.5	2,7,9(a,b),10,15,17
3.1	1,2,3,5,7,11,12,14
3.2	1(b,c),2(c,d),3,5(b),6,8(b),12,13,17,18
3.3	1,2,4,8,9,11,17,19(a,c)
4.1	1(a,b,c),2(c,d),3,7(b,c),9,13(a,b)
4.2	1-7(odd),10,13
4.3	1-7(odd),11,13,14,17,20(b,d)
4.4	1,3,4,8
5.1	1-3,5,10
5.2	1-5(odd),9,12,13,15,24,25,33
5.3	1,3

Additional problems may be assigned occasionally from other sources.