Introduction to Complex Analysis

Course: MATH 3210

Semester: Winter 2024

Instructor: Yorck Sommerhäuser

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Class meetings: Monday, Wednesday, Friday 12:00 m–12:50 pm, C 3053

Office hours: Monday, Friday 1:30 pm–2:30 pm and by appointment.

Textbook: J. W. Brown/R. V. Churchill: Complex Variables and Applications, 7th ed., McGraw-Hill, New York, 2004 (required resource)

Course description: The course examines complex numbers, analytic functions of a complex variable, differentiation of complex functions and the Cauchy-Riemann equations, complex integration, Cauchy's theorem, Taylor and Laurent series, residue theory and applications.

Coverage: We cover approximately the first six chapters of the textbook.

Examinations: There will be a midterm examination and a comprehensive final examination. The midterm examination takes place on Wednesday, February 14 during regular class time in the usual classroom. The final examination takes place during the examination period from April 10 to April 19 at a time and in a room determined by the registrar's office.

Homework: Beginning Monday of the second week (January 15), a weekly exercise sheet will be handed out. This has to be submitted in class on the following Monday. There will be no exercise sheet during the week of the midterm examination and no exercise sheets during the last two weeks of the semester. In addition, a reading assignment from the textbook will be given in every lecture.

Policies: Eating, drinking, and smoking are not permitted in the classroom. You are expected to be present at every class meeting, from the beginning to the end. Attendance will be taken and used to make decisions in borderline cases. The use of electronic devices, especially cellphones, calculators, and laptop computers, is not permitted without explicit permission of the instructor. Electronic devices have to be turned off completely.

Memorial University accommodates students with disabilities and demands academic integrity. The corresponding university policies can be found at http://www.mun.ca/policy/site/policy.php?id=239 and in the Academic Calendar in Paragraph 6.12, respectively.

Prerequisite: MATH 3000 (Real Analysis I)

Marking weights:

Homework:	25 %
Midterm examination:	25 %
Final examination:	50 %