Set Theory

Course: MATH 3300

Semester: Winter 2017

Instructor: Yorck Sommerhäuser

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Class meetings: Monday, Wednesday, Friday 10:00 am–10:50 am, C 3055

Office hours: Monday, Friday 1:00 pm–3:00 pm and by appointment.

Textbook: P. R. Halmos: Naive Set Theory, Undergraduate Texts in Mathematics, Springer, Berlin, 1974

Course description: The course examines relations and functions, equivalence relations and orderings, the Peano axioms, the axiom of choice, Zorn's lemma, the well-ordering theorem, ordinal and cardinal numbers, countability, the Schröder-Bernstein theorem, and Cantor's theorem.

Coverage: We cover the entire textbook.

Exams: There will be a midterm exam and a comprehensive final exam. The midterm exam takes place on Wednesday, February 15. The final exam takes place during the examination period from April 10 to April 20 at a time determined by the registrar's office.

Homework: Beginning Monday, January 16, 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 exam 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 is not permitted in the classroom. Although attendance is not recorded, you are expected to be present at every class meeting, from the beginning to the end. 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 2320

Marking weights:

Homework:	20 %
Midterm exam:	30 %
Final exam:	50 %