Linear Algebra II

Course: MATH 2051

Semester: Fall 2017

Instructor: Yorck Sommerhäuser

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Class meetings: Monday, Tuesday, Thursday 1:00 pm–1:50 pm, SN 1019

Office hours: Monday, Wednesday, Friday 3:00 pm–4:30 pm and by appointment.

Textbook: H. Anton/C. Rorres: Elementary Linear Algebra, Applications Version, 11th ed., Wiley, Hoboken, 2014

Course description: The course treats general vector spaces, general linear transformations, eigenvectors and eigenvalues, diagonalization, inner products, and orthogonality of vectors. Time permitting, we will also treat orthogonal matrices, quadratic forms, the principal axis theorem, positive definiteness, as well as hermitian, unitary, and normal matrices.

Coverage: We will cover Chapters 4, 5, 6, and 8 of the textbook. Chapter 8 will be covered directly after Chapter 4. Time permitting, we will also cover Chapter 7.

Exams: There will be a midterm exam and a comprehensive final exam. The midterm exam takes place on Thursday, October 12. The final exam takes place during the examination period from December 6 to December 15 at a time determined by the registrar's office.

Homework: Beginning in the second week, a weekly exercise sheet will be handed out. We will form groups of up to three, preferably exactly three, students, who solve these exercises together. The group solution 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. 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.

Prerequisites: MATH 1000 (Calculus I) and MATH 2050 (Linear Algebra I)

Marking weights:

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