

MATH 251
Linear Algebra I
Winter 2017

- Instructor:** Dr. I. Cojocaru, Office: LB 1036 (SGW), Phone: 848-2424, Ext. 8656
Email: ionica.groparu-cojocaru@concordia.ca
- Text:** *Linear Algebra*, 4th Edition, by S. Friedberg, A. Insel, L. Spence, (Prentice Hall).
- Assignments:** You will be required to hand in weekly assignments. The assignments will be posted on the Moodle website. They reflect the content of the course. No late assignments will be accepted.
- Class Test:** There will be one class test in the seventh week of classes, covering the first five weeks of the course. There will be no make-up test.
- Final Grade:** The final examination will be three hours long. It will cover material from the entire course.
- Grading:** Your final grade is the maximum of the final examination grade counted as 100%, and a grade computed by adding 60% of your mark on the final examination to your class test 30%, and your assignments 10%.
- Calculators:** Only calculators approved by the Department are permitted in the class test(s) and final examination. The calculators are the **Sharp EL 531** and the **Casio FX 300MS**, available at the Concordia Bookstore.

Week	Section	Topic	
1	1.2, 1.3	Vector Spaces, Subspaces	
2	1.4, 1.5	Linear Combinations, Systems of Equations Linear Dependence and Independence	
3	1.6	Basis and Dimension	
4	2.1	Linear Transformations, Null Spaces, Ranges	

5	2.2	Matrix Representation of Linear Transformation	
6	2.3	Composition of Linear Transformations, Matrix Multiplication	
7		CLASS TEST	
8	2.4 2.5	Invertibility and Isomorphisms Change of Coordinate Matrix	
9	3.1, 3.2, 3.3	Elementary Matrices, Rank of Matrices, Matrix Inverses, Systems of Equations	
10	3.4 4.3, 4.4	Systems of Equations Determinants and Cramer's rule	
11	5.1	Eigenvalues and Eigenvectors	
12	5.2	Diagonalizability	
13		REVIEW	