Math 1104 C Linear Algebra, Fall 2017

Instructor:	Dr. Mohammad R Sadeghi				
	5260 HP Tel: 613-520-2600 ext. 8673				
	Email: msadeghi@math.carleton.ca				
Office Hours:	Wed. and Fri: 1:00 – 2:00 pm				
Textbook:	Linear Algebra and its Applications, 5th Edition, David C. Lay				
Recommended References:					
	Linear Algebra and its Applications" 2d Edition by Mohammad R Sadeghi &				
	Jabir Abulrahman. This book is available at Haven Books.				

Prerequisite: Ontario Grade 12 Mathematics: Geometry and Discrete Mathematics; or an OAC in Algebra and Geometry; or MATH 0005; or equivalent; or permission of the school.

Lectures: Wednesday and Friday from 4:05 to 5:25 pm at AT 301 Classes start on Wed. Sep 6, and classes end at Fri Dec 8.

Tutorials: Fri. 1:35-2:25 starting Sept. 15

Tut. Sec.	Student's Last Name	Location	Days/Time	TAs name	

Evaluation:	10%	Tutorial attendance
	40%	Tests (The best 2 tests out of 3 tests)
	50%	Final Exam

Tutorial Work There will be a one hour tutorial each week. Except for the four test weeks, the tutorials will be devoted to problem solving. Please make sure to always go to the tutorial section you are registered in.

Term Tests There will be three 50-minute tests held in the tutorial hours on:

Oct 6, Nov 10, Dec 1.

There will be **no make-up tests**. Students are allowed to miss one test without penalty. In case when a student misses more than one test due to illness (supported by a doctor note) jury duty or extreme personal misfortune, the term mark may be pro-rated. It is each student's responsibility to collect the

marked tests from the TA. The test papers are normally distributed in the tutorial session following the date of the test.

Final Examination:

There will be a 3-hour exam scheduled during the usual exam period. It is the responsibility of each student to be available at the time of the final examination. In particular, no travel plans for the examination period in December should be made until the examination schedule is published. **Calculators:**

Only **non-programmable**, **non-graphing calculators** for the tests and the final examination.

Announcements:

You are responsible for keeping up with information announced in class or sent to your connect email account. The following **course schedule** is approximate, and may change subject to the progress of the class. The material covered on each test will be announced in class one week before the test.

Tentative Course Schedule

The following week by week schedule is subject to change depending on the progress of the course

	Dates		Topics
1	Sept 6 –Sept 8		Systems of Linear Equations, Row Echelon Forms Vector Equations
2	Sept 13 – Sept 15	First tutorial	The Matrix Equation Ax = b , Solution Sets of Linear Systems
3	Sept 20 – Sept 22		Applications of Linear Systems, Matrix Operations
4	Sept 27 – Sept 29		The Inverse of a Matrix. Characterizations of Invertible Matrices
5	Oct 4 – Oct 6	Test 1, Oct 6	Introduction to Determinants, Properties of Determinants, Cramer's Rule
6	Oct 11 – Oct 13		Subspaces of R^{n} , Dimension and Rank
7	Oct 18 – Oct 20		Introduction to Linear Transformations, The Matrix of a Linear Transformation
8	Oct 24 - Oct 26		FALL BREAK
9	Nov 1 – Nov 3		Eigenvectors and Eigenvalues, The Characteristic Equation
10	Nov 8 Nov 10	Test 2, Nov 10.	Diagonalization
11	Nov 15 – Nov 17		Complex Numbers, Complex Eigenvalues
12	Nov 22 – Nov 24		Inner Product, Length and Orthogonality, Orthogonal Sets
13	Nov 29 – Dec 1	Test 3, Dec 1	Orthogonal Projections
14	Dec 6 – Dec 8		Final Exam Review

MATH Tutorial Center:

Please note that the mathematics TUTORIAL CENTER, in Herzberg Physics Building, Room 3422, new wing will open on Fri Sept. XX and run for 10 weeks. Regular hours will be from 10:00 am to 4:00 pm Mon. through Thurs. One or two evening hours will be arranged after T.A. availability is known. The Tutorial Center is a drop in center

where students in elementary courses can get one-on-one help in math & stats. It is staffed mainly by graduate students and undergraduate TA's.

Students with disabilities: Students with disabilities requiring academic accommodations in this course are encouraged to contact the Paul Menton Center for Students with Disabilities (500 University Center) to complete the necessary forms. After registering with the Center, make an appointment to meet with me in order to discuss your needs at least two weeks before the first in-class test or CUTV midterm exam. This will allow for sufficient time to process your request. Please note the following deadlines for submitting completed forms to the PMC for formally scheduled exam accommodations: TBA for fall and fall/winter term courses, and TBA for winter term courses."

Academic Accommodation: You may need special arrangements to meet your academic obligations during the term because of disability, pregnancy or religious obligations. You can visit the Equity Services web site to view the policies and to obtain more detailed information on academic accommodation at http://carleton.ca/equity/accommo

Academic Accommodation: You may need special arrangements to meet your academic obligations during the term. For an accommodation request the processes are as follows: **Pregnancy obligation**: write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details see the Student Guide