MATH- 2B ***Linear Algebra*** **Winter 2018**

MATH-02B-07 MTWThF 8:30am-9:20am in G-6
INSTRUCTOR: Dr. Iaroslav Kryliouk **OFFICE:** S76C
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OFFICE HOURS: Daily, 9:45am-10:15am in S76C; daily, 1:25pm-1:45pm, except Friday, in S76C.
Tutorial Center: S43

Course Description: Linear algebra and selected topics of mathematical analysis.

Text: ***Elementary Linear Algebra (applications version)***, 10^{th} edition, by Howard Anton/Chris Rorres, published by Wiley, 2010. ISBN: 9780470432051

Prerequisites: MATH-1D with a grade of C or better.

Reading your textbook will be essential. The exercise sets are written with the intent to forcing the student to approach problems graphically and numerically, as well as the traditional symbolic (algebraic) approach. There is such variety in the exercise sets, that a few lecture examples often can't illustrate every type of question in the homework. This make the reading a crucial part of the student's day-to-day work. The De Anza College catalog advises students to do at least 2 hours of work outside the classroom for each hour spent in class.

Technology: Students must have a graphing calculator. The instructor will use a Texas Instruments TI-84 plus in lectures. Consequently, the TI-84 plus (or TI-84, TI-83+, TI-83) is recommended for the students, but any graphing calculator that has a "table" feature is acceptable. (The old TI-81 and TI-85 models do *not* have a table feature!). *Any calculators that can do symbolic mathematics such as TI-89 or HP-49 are not allowed on exams and quizzes.*

Quizzes: There will be 6 quizzes. The lowest score will be dropped.

Tests: There will be three (3) tests worth 100 points each. Unless otherwise indicated, the graphics calculator will be required for tests. Material from any lecture, homework assignment, or quiz is fair game on test day. Be advised that all in-class assesments are closed book and closed notes ones.

The tentative schedule (subject to revision) of tests and the material covered is the following:
Test 1: Wednesday, Feb 7, Chapter 1, 2, 3
Test 2: Monday, Feb 26, Chapter 4.
Test 3: Thursday, Mar 15, Chapter 4, 5, 6.

Makeup Tests: There are no make –up tests, *under any circumstances.*
Final Exam: There will be a mandatory comprehensive two-hour final exam worth 200 points, and this exam *must* be taken during the scheduled exam time on Wednesday, March 28, 7:00am-9:00am, in G-6.

Homework (HW): Assignments will be given each class period. It is *strongly* recommended that you do complete the homework assignments since you will find them (or similar ones) on the quizzes and exams. You may find some of the problems quite hard because they are about concepts rather than calculations. For this reason it may be very helpful to work on these assignments in small groups. It is your responsibility as a college student to check that your answers and solutions are correct, and to correct any mistakes or misunderstandings. The instructor periodically will collect and grade the small subset of the selected homework problems on the short 24-hour announcement.The turned in homework papers should include solutions of the selected problems only.

Projects: During the quarter students will work on the application projects, which they will turn in with the corresponding documentation periodically during the quarter.
Mini-projects: From time to time you may have mini-projects. Points earned for mini-projects will apply to your total grade. These are bonus points!

Attendance: Attendance will be taken at each session. **You are expected to attend all classes on time.** If you miss 1 class meetings, you may be dropped from the class. However this is your responsibility to drop the course officially if you decide not to attend any longer. The students are responsible for any material covered and any announcements made in their absence.
Final Grade: Your final grade will be determined based on the following:
Grading Scale:

Quizzes, HW			
(80+70)	150 pts	X>=675 (96.5%)=A+	X>=528 (75.5%)=C+
Test 1	100 pts	X>=651 (93%)=A	X>=490 (70%)=C
Test 2	100 pts	X>=626 (89.5%)=A-	X>=420 (60%)=D
Test 3	100 pts	X>=602 (86%)=B+	X<=420 (60%)=F
Projects	50 pts	X>=577 (82.5%)=B	
Final Exam	200 pts	X>=553 (79.0%)=B-	
Total Points	X=700 pts		

Missing ne of the major tests is made up through added weight on the comprehensive final exam. Missing additional test results in a score of zero.

***** NO OTHER MAKE-UPS WILL BE GIVEN*****

A grade of "I" (incomplete) will be given at the instructor's discretion, if:

i) A student has successfully completed at least 75% of the course work, and
ii) has shown acceptable evidence which justifies his/her incomplete work.

Important Dates:

Monday, Jan 8-Winter quarter classes begin
Saturday, Jan 20-Last day to add quarter length courses
Sunday, Jan 21-Last day to drop a class with no record of grade (Drop date is enforced)
Monday, Jan 15-Observance of Martin Luther King's Birthday
Wednesday, Feb 7-Test 1 (Sec. 6.1-6.8**)**
Friday, Feb 2-Last day to request P/NP grade
Friday-Monday, Feb 16-19-Holiday: Presidents' Day Weekend
Monday, Feb 26-Test 2 (Sec. 7.1-7.6, 4.2, 4.3, 10.1**)**
Friday, March 2-Last day to drop with a "W" (withdraw date is enforced)
Thursday, March 15-Test 3 (Sec. 9.1-9.6**)**
Friday, March 23- Last day of classes
Wednesday, March 28 -Final exam 7:00am-9:00am, in G-6

*** (N.B.: It is the student's responsibility to complete the withdrawal process. Student who stop attending class are NOT automatically dropped. A student who stops attending class and does not complete the withdrawal process receives the grade of "F")

Academic Misconduct: Academic dishonesty will not be tolerated. If a student is found cheating on an exam, plagiarizing on writing assignments, or violating other codes of academic integrity, he or she will receive a failing grade for the course and may be reported to the college for an appropriate action. See section on Academic integrity in your current schedule of classes catalog.

If you are student with a disability: For information or questions about eligibility, support services or accommodations to disability (physical or learning disability) see contacts below:

Disability Support Service (DSS): Student Services Building (408) 864-8753;TTY 408) 864-8753
Educational Diagnostic Center (EDC): Learning Center West 110; (408) 864-8839
Special Education Division: 864-8407; www.deanza.edu/specialed

MATH-2B DE ANZA COLLEGE WINTER QUARTER 2018

TENTATIVE CALENDAR

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
JAN	**8** Classes start	**9** 1.1	**10** 1.2	**11** 1.3	**12** 1.4
JAN	**15** **Observance of M-L King's Birthday**	**16** ***Quiz 1***	**17** 1.5	**18** 1.6	**19** 1.8 **Saturday, Jan 20, Last day to add Sunday, Jan 21, Last day to drop with no record**
JAN	**22** 1.7	**23** ***Quiz 2***	**24** 2.1	**25** 2.2	**26** 2.3
JAN	**29** 3.1	**30** 3.2	**31** 3.3	**1** 3.4	**2** ***Quiz 3*** **Last day to request Pass/No Pass grade**
FEB	**5** 3.5	**6** *Review for Test 1*	**7** **Test 1**	**8** 4.1	**9** 4.2
FEB	**12** 4.3	**13** 4.4	**14** 4.5	**15** 4.6	**16** **16 -19 Holiday: Presidents' Day Weekend**
FEB	**19 16 -19 Holiday: Presidents' D Weekend**	**20** ***Quiz 4***	**21** 4.7	**22** ***Quiz 5***	**23** *Review for Test 2*
FEB / MAR	**26** **Test 2**	**27** 4.9	**28** 4.10	**1** 4.11	**2** 5.1 **Last day to drop w/"W"**
MAR	**5** 5.2	**6** ***Quiz 6***	**7** 5.4	**8** 6.1	**9** 6.2
MAR	**12** 6.3	**13** 6.4	**14** *Review for Test 3*	**15** **Test 3**	**16** 7.1
MAR	**19** 7.2	**20** 7.2	**21** 7.3	**22** 7.3	**23** Review for Final Exam
MAR	**26**	**27**	**28** **Final Exam 7:00-9:00am**	**29**	**30**

MATH-02B Homework (TENTATIVE) WINTER 2018

Section 1.1
10, 12, 13a, 13b, 14b, 16.

Section 1.2
2, 4a, 4b, 4c, 4d, 6, 12, 13.

Section 1.3
,3e, 3g, 3k, 4f, 4h, 11a, 13a, 23a, 23c, 30a, 30b.

Section 1.4
2b, 3a, ,3d, 4, 10, 12, 14, 18a, 18c, 18e, 22, 28, 30, 35, 40, 54.

Section 1.5
2, 4, 6a, 6b, 6c, 7a, 7c, 10, 14, 25a, 25b, 32, 37.

Section 1.6
2, 5, 10, 12, 14, 15, 18, 23.

Section 1.7
2, 3,4 ,5, 6, 10, 18, 20, 34.

Section 1.8
2, 7.

Section 2.1
2, 3, 4 ,5 ,6, 10, 16, 17, 18, 22, 28.

Section 2.2
4, 5, 8, ,10, 14, 20, 24, 28, 36.

Section 2.3
4, 6, 8, 10, 12, 18, 20, 24, 26, 30,36.

Section 3.1
4a, 4d, 4e, 4f, 6a, 6c, 8a, 8b, 10a, 10b, 12a, 14d, 14e, 22a, 28, 30, 34.

Section 3.2
2a, 2b, 4a, 8, 10a, 12a, 12b, 14, 16, 18, 20a, 20b, 22, 24, 26a.

Section 3.3
2b, 2c, 2d, 4a, 4c, 5, 8, 10, 14, 20a, 20b, 24, 28, 30, 32, 34, 36, 38.

Section 3.4
2, 6, 8, 10, 16, 20, 24, 26, 28.

Section 3.5
2a, 2b, 4, 10, 12, 16, 18, 22, 26a, 26b.

Section 4.1
2, 4, 8, 14.

Section 4.2
1, 2, 8, 11, 12.

Section 4.3
2, 4, 6, 8, 12.

Section 4.4
2, 4, 6, 8, 10, 12.

Section 4.5
2, 4, 6, 8, 12, 16, 20a, 20b.

Section 4.6
2a, 2b, 3, 5a, 6, 8, 9, 10, 12, 16.

Section 4.7
2, 4, 6a, 6d, 8, 12a, 12c, 14.

Section 4.8
2a, 2b, 2c, 4, 6, 7, 8, 14, 16.

Section 4.9
4, 5a, 5d, 6a,, 6d, 8a, 8b, 8c, 19a, 10c, 12a, 12b, 14, 16, 17, 22,

Section 4.10
4, 5a, 5d, 6a, 6b, 6c, 8a, 8b, 8c, 12a, 12d, 14a, 14d, 22a, 22b.

Section 4.11
1, 2, 3, 4, 6, 8a, 8b, 8c, 12a, 12b, 12c, 14a, 14b.

Section 5.1
2, 3, 4, 6a, 6c, 6f, 8a, 8c, 8f, 8b,12a,12b, 14.

Section 5.2
2, 3, 4, 6, 8, 10, 12, 14, 18. 22.

Section 5.4
2, 4.

Section 6.1
6, 4, 7, 8.

Section 6.2
1e, 2, 5, 6, 8, 12, 14, 16a, 16b.

Section 6.3
2, 4, 10, 12, 14, 20a, 22, 24, 26, 28, 29.

Section 6.4
1, 2, 4a, 6a, 7a, 8, 10, 15, 16.

Section 7.1
2, 3a, 3c, 6, 8, 12.

Section 7.2
2, 6, 14, 16a, 16c, 18a.

Section 7.3
2, 4, 5, 6, 10, 12, 16, 28.

Student Learning Outcome(s):

*Construct and evaluate linear systems/models to solve application problems.
*Solve problems by deciding upon and applying appropriate algorithms/concepts from linear algebra.
*Apply theoretical principles of linear algebra to define properties of linear transformations, matrices and vector spaces.