Math 330 Section 1002: Linear Algebra I  
Spring Semester 2018

Time:                               MW 2:30-3:45pm PE 104.
Text:                               Linear Algebra and its applications 5th edition
                                    by David C. Lay. (a printed copy of the textbook is optional)
Instructor:                         Aleksey (Alex) Telyakovskiy
                                    e-mail: alekseyt@unr.edu
Web page:                           http://www.unr.edu/homepage/alekseyt
                                    http://mymathlab.com; course ID is telyakovskiy04552
                                    On MyMathLab (MML) you’ll find lecture notes, online text, online hw, other links and current grade;
                                    for step-by-step registration info see my UNR webpage.
Phone:                              784-1364
Office:                             DMS 322
Office Hours:                      MW 1:30-2:20pm or by appointment.
Corequisite:                       Math 283.

Required Course Materials:         MyMathLab access code: Wolf Shop or credit card online.

                                    Calculator: Graphing calculators are not allowed on quizzes and exams; use of mobile
devices during quizzes and exams is NOT allowed.

STUDENT LEARNING OUTCOMES:

Upon completion of this course, students will be able to:

- Students will be able to compute eigenvalues and eigenvectors; determine whether a
  matrix is diagonalizable and if possible diagonalize it;
- Students will be able to compute the dimension of a vector space, the rank of a
  matrix or the span of a collection of vectors;
- Students will be able to find or identify a basis for a vector space, use the
  Gram-Schmidt process to find an orthonormal basis, or carry out a change of basis.

Topics:                             Topics will be taken from Lay’s book.

Vector analysis continued from Math 283; abstract vector spaces; bases, inner products;
projections; orthogonal complements, least squares; linear maps, structure theorems;
elementary spectral theory; applications.

Grading Policies:

Quizzes&HW:                        12&17%

There will be 1-2 weekly quizzes. Each quiz question will be taken from a suggested list of
exercises or will be similar. There will be no make-up quizzes. The lowest 2 scores will not
count toward the final grade.

Homework sets will be posted on MML software, to be completed online. There will be
few days given to you to work on each assignment.
Exams: 51%
There will be 3 mid-term exams (1 or 2 exams would be take home). Topics and dates for each exam will be announced in class a week advance. Make-ups for exams will be given only in extreme circumstances. Students who were absent with a documented emergency or university-sponsored activity must see the instructor beforehand to make arrangements. Any student requiring accommodations through the DRC must schedule their exams on the same day as in the class exams.

Final Exam: 20%
Final exam is a cumulative exam to be given during the finals week on Wednesday May 16, 12:10-2:10pm.

Exams: The (tentative) schedule of the exams is:
- Exam 1: Wednesday March 7
- Exam 2: take home; out Mon April 2 – due Wed Apr 4
- Exam 3: Wednesday May 2
- Final Exam: Wednesday May 16, 12:10-2:10pm

Later during the semester we will fix the dates for mid-term exams.

Note: Please be polite and turn off all the cell phones, music players and pagers before class. They are very distracting for everybody.

Grading scale: Grade “C” corresponds to 70%, there will be no “C–” grade. All other pluses/minuses will be used in grade assignment.

Drop deadline: The final day to drop classes and receive a “W” is Tuesday April 3.

Technology: We may use MAPLE/MATLAB to conduct some calculations. Software is available in many UNR computer labs. Also, MATLAB can be accessed through library Citrix server https://remote.unr.edu/.

Email communication: Emails will be answered within 24 hours.

Support: If you have any difficulties that are interfering with your work in this class, please see me to discuss them. Also, personal counseling and disability resources are available through the Student Services (Counseling: 784-4648, Disability: 784-6000).

Academic Success Services: Your student fees cover usage of the Math Center (784-4433 or http://www.unr.edu/mathcenter/), Tutoring Center (784-6801 or http://www.unr.edu/tutoring/), and University Writing Center (784-6030 or http://www.unr.edu/writing_center). These centers support your classroom learning; it is your responsibility to take advantage of their services. Keep in mind that seeking help outside of class is the sign of a responsible and successful student.

Disability Statement: The Math department supports providing equal access for students with disabilities. I encourage any student needing to request accommodations for a specific disability to please meet with me at your earliest convenience to ensure timely and appropriate accommodations.

Academic Dishonesty: “Cheating, plagiarism or otherwise obtaining grades under false pretenses” constitute academic dishonesty according to the code of this university. Academic dishonesty will not be tolerated and penalties can include canceling a student’s enrollment without a grade, giving an F for the course or for the assignment.
**Diversity Statement:** The University of Nevada, Reno is committed to providing a safe learning and work environment for all. If you believe you have experienced discrimination, sexual harassment, sexual assault, domestic/dating violence, or stalking, whether on or off campus, or need information related to immigration concerns, please contact the University’s Equal Opportunity & Title IX Office at 775-784-1547. Resources and interim measures are available to assist you. For more information, please visit: http://www.unr.edu/equal-opportunity-title-ix.

**Suggestions for success:** Attend all class periods. You are responsible for all material covered in class, as well as announcements and quizzes. If you miss a class, get a copy of someone’s notes.

Do not fall behind. In this class, you will not be successful if you take it easy for a week or two and then try to catch up in a flurry of activity.

Try to study with others in small groups. This is a great way to learn. You will benefit a great deal from discussing the material with others, as well as working the problems. Just be sure that you are ultimately able to work the problems on your own, since this is what the exams will measure.

**Surveillance of lectures:** Surreptitious or covert video-taping of class or unauthorized audio recording of class is prohibited by law and by Board of Regents policy. This class may be videotaped or audio recorded only with the written permission of the instructor.

In order to accommodate students with disabilities, some students may have been given permission to record class lectures and discussions. Therefore, students should understand that their comments during class may be recorded.

**P.S.** The information listed here is subject to change. If any change takes place it will be announced in class.

**A tentative course plan:**

<table>
<thead>
<tr>
<th>Mon Jan 22</th>
<th>Sec. 1.1, 1.2</th>
<th>Mon Jan 29</th>
<th>Sec. 1.4</th>
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<tbody>
<tr>
<td>Wed Jan 24</td>
<td>Sec. 1.2, 1.3</td>
<td>Wed Jan 31</td>
<td>Sec. 1.5, 1.7</td>
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<tr>
<td>Mon Feb 5</td>
<td>Sec. 1.7, 1.8</td>
<td>Mon Feb 12</td>
<td>Sec. 2.2, 2.3</td>
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<tr>
<td>Wed Feb 7</td>
<td>Sec. 2.1, 2.2</td>
<td>Wed Feb 14</td>
<td>Sec. 2.5</td>
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<td>Mon Feb 19</td>
<td>Pres’ Day, no class</td>
<td>Wed Feb 21</td>
<td>Sec. 3.1</td>
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<td>Mon Feb 26</td>
<td>Sec. 3.2</td>
<td>Wed Feb 28</td>
<td>Sec. 4.1</td>
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<tr>
<td>Mon Mar 5</td>
<td>Sec. 4.2, Review</td>
<td>Wed Mar 7</td>
<td>Exam I</td>
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<tr>
<td>Mon Mar 12</td>
<td>Sec. 4.3</td>
<td>Wed Mar 14</td>
<td>Sec. 4.4</td>
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<tr>
<td>Mon Mar 19</td>
<td>Spring Break, no class</td>
<td>Wed Mar 21</td>
<td>Spring Break, no class</td>
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<tr>
<td>Mon Mar 26</td>
<td>Sec. 4.5</td>
<td>Wed Mar 28</td>
<td>Sec. 4.6</td>
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<tr>
<td>Mon Apr 2</td>
<td>Sec. 5.1, 5.2 (take home Exam II)</td>
<td>Wed Apr 4</td>
<td>Sec. 5.2, 5.3 (due)</td>
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<td>Mon Apr 9</td>
<td>Sec. 5.5</td>
<td>Wed Apr 11</td>
<td>Sec. 5.7</td>
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<td>Mon Apr 16</td>
<td>Sec. 6.1</td>
<td>Wed Apr 18</td>
<td>Sec. 6.2</td>
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<tr>
<td>Mon Apr 23</td>
<td>Sec. 6.3</td>
<td>Wed Apr 25</td>
<td>Sec. 6.4</td>
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<tr>
<td>Mon Apr 30</td>
<td>Sec. 6.5, Review</td>
<td>Wed May 2</td>
<td>Exam III</td>
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<tr>
<td>Mon May 7</td>
<td>Sec. 7.1, Review</td>
<td>Wed May 9</td>
<td>Prep Day no class</td>
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<td></td>
<td>Wed May 16</td>
<td>12:10-2:10pm</td>
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