UTRGV LINEAR ALGEBRA MATH2318 SYLLABUS, SPRING 2018 SECTION 03I

UTRGV Course # Math2318 Dr. Mikhail Bouniaev
Term: Spring 2018 Telephone: (956)882-6600, e-mail: mikhail.bouniaev@utrgv.edu
Meeting location & times: LHSB 1.312 MW 1:40PM - 2:55 PM
Office location & hours LHSB2.508 MW 3 PM -3:50PM (no need to make an appointment, I will be there unless I make announcement of special circumstances); MW 11:30 AM -12:15 PM (by appointment only)

Textbook and/or Resource Material Required
Unlike later additions of the book listed below that price starts at $150 you can purchase this one (say on Amazon) for $5-$15
Title: Linear Algebra With Applications,
Publication Year: 2004
Edition: 5
Topic: Algebra / Linear
ISBN-10: 0763732354
Author: Gareth Williams
Publisher: Jones & Bartlett Learning

Recommended Software: your own calculator, Matlab or Linear Algebra Toolkit
http://www.math.odu.edu/~bogacki/cgi-bin/lat.cgi;

My power point presentation that will be available on the website by every Sunday night for the next week classes. Recommended:

Course Description and Prerequisites
Topics include systems of linear equations, matrices and their algebraic properties, determinants, vectors, Euclidean n-space, linear transformations and their matrix representations, vector spaces, eigenvalues and eigenvectors, and applications to the sciences and business. Use of mathematical technology will be incorporated throughout the course.

Prerequisites: MATH 2413 (or MATH 2487) with a grade of ‘C’ or better.
3.00 Credit hours; 3.00 Lecture hours

Learning Objectives/Outcomes for the Course
After completing this course successfully, the student will be able to:
• Solve systems of linear equations
• Perform algebraic operations on matrices and vectors
• Evaluate and apply determinants
• Find bases of a vector space and coordinates of a vector with respect to a basis
• Understand the concept of linear transformation and apply it
• Determine eigenvalues and eigenvectors of a linear transformation
• Diagonalize a matrix
• Find the matrix of a quadratic form
• Apply linear algebra concepts and technique

Attendance:
• Attendance for each full class and lab period is required. Do not schedule other activities or appointments during
our class time. Anyone leaving class early, whether excused or unexcused, will be counted absent. The instructor has the prerogative to drop any student who has 3 or more unexcused absences or is habitually tardy.

- **Cell phones must be turned off and put away during lectures, labs, and tests.**

**Learning Objectives for Core Curriculum Requirements – N/A**

It is not a core curriculum requirement course.

**Grading Policies**

- **Practice Problems 20% of Final Grade:** All practice problems MUST be done and turned before class exactly on the day marked in the schedule (do not turn it in either later or earlier - it will not be graded!).

  About 35% of your homework will be actually be graded.

- **Quizzes 20% of Final Grade:** Very often it will be 10-15 minutes long quizzes that will contain definitions, theorem statements and/or homework problems or similar.

- **TESTS/Exams 60% of the Final Grade; 20% for each test/exam:** There will be two midterm tests/exams and Final TEST/Exam

**Letter Grade:** The course grade will be assigned according to the following scale: A (90-100%), B (80-89%), C (70-79%), D (60-69%), F (below 60%).

**FINAL EXAM Date:** According to the UTRGV Schedule

**ABSENCES AND MAKE-UP WORK**

Attendance is mandatory please contact instructor for special arrangements beforehand if absent. If you know that you will have to miss a test, please see me ahead of time and make arrangements to take it early. No make-up work

**Reading Assignment and Practice Problems. Assignments could be changed depending on the results of the first Test.**

<table>
<thead>
<tr>
<th>Date Assigned</th>
<th>Reading Assignment Due Next Class Period</th>
<th>Practice set assigned</th>
<th>Due Date. Should be submitted by the beginning of the class</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 17, Wednesday</td>
<td>1.1 &amp; 1.2</td>
<td>Practice #1-1.1</td>
<td>January 24, Wednesday</td>
</tr>
<tr>
<td>January 22, Monday</td>
<td>1.2 &amp; 1.3</td>
<td>Practice #2-1.3</td>
<td>January 24, Wednesday</td>
</tr>
<tr>
<td>January 24, Wednesday</td>
<td>2.1</td>
<td>Practice #3-2.1</td>
<td>January 29, Monday</td>
</tr>
<tr>
<td>January 29, Monday</td>
<td>2.2;2.3</td>
<td>Practice #4-2.2;2.3</td>
<td>January 31, Wednesday</td>
</tr>
<tr>
<td>January 31, Wednesday</td>
<td>2.3</td>
<td>Practice #5-2.3</td>
<td>February 5, Monday</td>
</tr>
<tr>
<td>February 5, Monday</td>
<td>2.4</td>
<td>Practice #6-2.4</td>
<td>February 7, Wednesday</td>
</tr>
<tr>
<td>February 7, Wednesday</td>
<td>2.5;2.6;2.7; Review</td>
<td>Practice #7-2.5;2.6</td>
<td>February 12, Monday</td>
</tr>
<tr>
<td>February 12, Monday</td>
<td>Exam 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>February 14, Wednesday</td>
<td>3.1</td>
<td>Practice #8-3.1</td>
<td>February 19, Monday</td>
</tr>
<tr>
<td>February 19, Monday</td>
<td>3.2</td>
<td>Practice #9-3.2</td>
<td>February 26, Monday</td>
</tr>
<tr>
<td>February 21, Wednesday</td>
<td>3.4</td>
<td>Practice #10-3.4</td>
<td>February 26, Monday</td>
</tr>
<tr>
<td>February 26, Monday</td>
<td>4.1</td>
<td>Practice #11-4.1</td>
<td>February 28, Wednesday</td>
</tr>
<tr>
<td>February 28, Wednesday</td>
<td>4.2</td>
<td>Practice #12-4.2</td>
<td>March 5, Monday</td>
</tr>
<tr>
<td>March 5, Monday</td>
<td>4.3 &amp; 4.4</td>
<td>Practice #13-4.2;4.4</td>
<td>March 7, Wednesday</td>
</tr>
</tbody>
</table>
Calendar of Activities
Include in this section a table or list that provides information for students regarding important dates, assignments or activities. The UTRGV academic calendar can be found at https://my.utrgv.edu/home at the bottom of the screen, prior to login. Some important dates for spring 2018 include:

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 16</td>
<td>First day of classes</td>
</tr>
<tr>
<td>January 19</td>
<td>Last day to add a course or register for spring 2018</td>
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<tr>
<td>March 12 – 17</td>
<td>SPRING BREAK – NO classes</td>
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<tr>
<td>March 30 – 31</td>
<td>EASTER HOLIDAY – NO classes</td>
</tr>
<tr>
<td>April 12</td>
<td>Last day to drop a course; will count toward the 6-drop rule</td>
</tr>
<tr>
<td>May 2</td>
<td>Last day of classes</td>
</tr>
<tr>
<td>May 3</td>
<td>Study Day – NO class</td>
</tr>
<tr>
<td>May 4 – 10</td>
<td>Spring 2018 Final Exams</td>
</tr>
<tr>
<td>May 11 - 12</td>
<td>Commencement Ceremonies</td>
</tr>
</tbody>
</table>

Other Course Information
In this section, please provide any other information that is pertinent to your course and your expectations for students.

UTRGV Policy Statements [next page]

The UTRGV disability accommodation, mandatory course evaluation statement and sexual harassment statement are required on all syllabi. Additional policy statements are optional, such as those covering attendance, academic integrity, and course drop policies.

STUDENTS WITH DISABILITIES: Required on all syllabi. Do not modify.

Students with a documented disability (physical, psychological, learning, or other disability which affects academic performance) who would like to receive academic accommodations should contact Student Accessibility Services (SAS) as soon as possible to schedule an appointment to initiate services. Accommodations can be arranged through SAS at any time, but are not retroactive. Students who suffer a broken bone, severe injury or undergo surgery during the semester are eligible for temporary services. **Brownsville Campus:** Student Accessibility
Services is located in Cortez Hall Room 129 and can be contacted by phone at (956) 882-7374 (Voice) or via email at ability@utrgv.edu. **Edinburg Campus:** Student Accessibility Services is located in 108 University Center and can be contacted by phone at (956) 665-7005 (Voice), (956) 665-3840 (Fax), or via email at ability@utrgv.edu.

**MANDATORY COURSE EVALUATION PERIOD:** *Required on all syllabi. Do not modify.*

Students are required to complete an ONLINE evaluation of this course, accessed through your UTRGV account (http://my.utrgv.edu); you will be contacted through email with further instructions. Students who complete their evaluations will have priority access to their grades. Online evaluations will be available:
- Spring 2018 Module 1  February 14 – February 20
- Spring 2018 Module 2  April 11 – April 17
- Spring 2018 (full semester)  April 11 – May 2

**ATTENDANCE:** *Recommended on all syllabi; may be modified by the instructor as long as it is not inconsistent with UTRGV policy.*

Students are expected to attend all scheduled classes and may be dropped from the course for excessive absences. UTRGV’s attendance policy excuses students from attending class if they are participating in officially sponsored university activities, such as athletics; for observance of religious holy days; or for military service. Students should contact the instructor in advance of the excused absence and arrange to make up missed work or examinations.

**SCHOLASTIC INTEGRITY:** *Recommended on all syllabi.*

As members of a community dedicated to Honesty, Integrity and Respect, students are reminded that those who engage in scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and expulsion from the University. Scholastic dishonesty includes but is not limited to: cheating, plagiarism (including self-plagiarism), and collusion; submission for credit of any work or materials that are attributable in whole or in part to another person; taking an examination for another person; any act designed to give unfair advantage to a student; or the attempt to commit such acts. Since scholastic dishonesty harms the individual, all students and the integrity of the University, policies on scholastic dishonesty will be strictly enforced (Board of Regents Rules and Regulations and UTRGV Academic Integrity Guidelines). All scholastic dishonesty incidents will be reported to the Dean of Students.

**SEXUAL HARASSMENT, DISCRIMINATION, and VIOLENCE:** *Required on all syllabi. Do not modify.*

In accordance with UT System regulations, your instructor is a “Responsible Employee” for reporting purposes under Title IX regulations and so must report any instance, occurring during a student’s time in college, of sexual assault, stalking, dating violence, domestic violence, or sexual harassment about which she/he becomes aware during this course through writing, discussion, or personal disclosure. More information can be found at www.utrgv.edu/equity, including confidential resources available on campus. The faculty and staff of UTRGV actively strive to provide a learning, working, and living environment that promotes personal integrity, civility, and mutual respect that is free from sexual misconduct and discrimination.

**COURSE DROPS:** *Recommended on all syllabi; may be modified by the instructor as long as it is not inconsistent with UTRGV policy.*

According to UTRGV policy, students may drop any class without penalty earning a grade of DR until the official drop date. Following that date, students must be assigned a letter grade and can no longer drop the class. Students considering dropping the class should be aware of the “3-peat rule” and the “6-drop” rule so they can recognize how dropped classes may affect their academic success. The 6-drop rule refers to Texas law that dictates that undergraduate students may not drop more than six courses during their undergraduate career. Courses dropped at other Texas public higher education institutions will count toward the six-course drop limit. The 3-peat rule refers to additional fees charged to students who take the same class for the third time.

**STUDENT SERVICES:** *Recommended on all syllabi.*

Students who demonstrate financial need have a variety of options when it comes to paying for college costs, such as scholarships, grants, loans and work-study. Students should visit the Students Services Center (U Central) for additional information. U Central is located in BMAIN 1.100 (Brownsville) or ESSBL 1.145 (Edinburg) or can be reached by email (ucentral@utrgv.edu) or telephone: (888) 882-4026. In addition to financial aid, U Central can assist students with registration and admissions.
Students seeking academic help in their studies can use university resources in addition to an instructor's office hours. University Resources include the Learning Center, Writing Center, Advising Center and Career Center. The centers provide services such as tutoring, writing help, critical thinking, study skills, degree planning, and student employment. Locations are:

- **Learning center:** BSTUN 2.10 (Brownsville) or ELCTR 100 (Edinburg)
- **Writing center:** BLIBR 3.206 (Brownsville) or ESTAC 3.119 (Edinburg)
- **Advising center:** BMAIN 1.400 (Brownsville) or ESWKH 101 (Edinburg)
- **Career center:** BCRTZ 129 (Brownsville) or ESSBL 2.101 (Edinburg)