STEM Division

MATH 2418-43360, 4 Credit Hours
Linear Algebra
Spring Semester, 2015

Classes are on A-Days, Period 3.
Classes meet from 11:44 am to 1:14 pm
Room 120, Bishop Lynch High School

Instructor:
Jeff Morrow

Contact Information:
Office: Bishop Lynch High School Office: Room 120
Office Hours: 7:50-8:10am, 3:40-4:00pm weekdays
Phone: Bishop Lynch HS: 214-324-3607x363
Email Address: jeff.morrow@bishoplynch.org ; jdm4468@dcccd.edu

Course Description:
Introduces and provides models for application of the concepts of vector algebra. Topics include finite
dimensional vector spaces and their geometric significance; representing and solving systems of linear
equations using multiple methods, including Gaussian elimination and matrix inversion; matrices;
determinants; linear transformations; quadratic forms; eigenvalues and eigenvectors; and applications in
science and engineering.

STUDENT LEARNING OUTCOMES
After completing this course, the student should be able to:
1. Be able to solve systems of linear equations using multiple methods, including Gaussian elimination
   and matrix inversion.
2. Be able to carry out matrix operations, including inverses and determinants.
3. Demonstrate understanding of the concepts of vector space and subspace.
4. Demonstrate understanding of linear independence, span, and basis.
5. Be able to determine eigenvalues and eigenvectors and solve problems involving eigenvalues.
6. Apply principles of matrix algebra to linear transformations.
7. Demonstrate application of inner products and associated norms.
Prerequisite: MATH 2414 or equivalent

Textbook and Other Course Materials:


2. **Calculator**: A calculator with matrix operations is required. You may choose your own calculator model; however, the instructor will use a TI 83 or TI 84 version. Unless the directions specifically state that a graphing calculator is allowed, the student is expected to work the problem analytically, showing all steps. If the directions call for calculator usage, the student is expected to write down the setup as well as the result.

Grading Policy: Quarter 3- 40%, Quarter 4- 40%, Final Exam- 20%

Grading Rationale: 90—100 A, 80—89 B, 70—79 C

Policy on Missed Tests and Assignments: Students are expected to contact instructor ASAP to make up tests and assignments missing due to excused absence from class.

Attendance Policy:
You are expected to regularly attend all classes in which you are enrolled. Students have the responsibility to attend class and to consult with the instructor when an absence occurs.

Drop Date:
Last date to drop with a grade of “W” is **4/27/2015**.

Drop Policy:
To drop a class or withdraw from the college, students must follow the prescribed procedure. **It is the student’s responsibility to drop or withdraw.** Failure to do so will result in receiving a performance grade, usually grade of “F”. Should circumstances prevent a student from appearing in person to withdraw from the college, the student may withdraw by mail or by writing the Registrar. A drop/withdrawal request by mail must be received in the Registrar’s Office by the semester deadline. No drop or withdrawal requests are accepted by telephone. Students who drop a class or withdraw from the College before the semester deadline receive a “W” (Withdraw) in each class dropped. The deadline for receiving a “W” is indicated on the academic calendar and the current class schedule. If you are unable to complete this course, you must withdraw from it by **4/27/2015**. See “Refund of Tuition” for possible eligibility for a refund.

**STOP BEFORE YOU DROP**
Six Drop Rule: For students who enrolled in college level courses for the first time in the fall of 2007, Texas Education Code 51.907 limits the number of courses a student may drop. You may drop no more than 6 courses during your entire undergraduate career, unless the drop qualifies as an exception. Your campus counseling/advising center will give you more information on the allowable exceptions. Remember that once you have accumulated 6 non-exempt drops you cannot drop any other courses with a “W”. Therefore, please exercise caution when dropping courses in any Texas public institution of higher learning, including all seven of the Dallas County Community Colleges. For more information on the 6 drop rule, you may access: https://www1.dcccd.edu/6drop.
**Children on Campus**
The institution strives to protect an environment most conducive to teaching and learning for all enrolled students. Children who are taking part in organized scheduled activities or who are enrolled in specific classes are welcomed. Minor children, however, should not be brought to the institution unless closely supervised by their parent. Minor children should not be brought into classrooms, laboratories or other facilities of the college. This practice is disruptive to the learning process. In the case of an emergency where the student-parent has no alternative but to bring the child to campus, classroom faculty or the administrative heads of other units have full discretion as to whether a child may be allowed to quietly stay in the location. These individuals may require that children be removed by the student-parent from the setting if, in their opinion, the presence of the child is deemed to be disruptive to the learning process. For reasons of security and child welfare the institution will not permit unattended children to be left anywhere on the premises. Parents who have problems with childcare should visit the Counseling and/or Advisement Center to receive referrals to childcare services in the area.

**Religious Holidays**
Absences for observance of a religious holy day are excused. Notification of the absence must be given to the instructor in writing at least two weeks prior to the date of the holy day. A student whose absence is excused to observe a religious holy day is allowed to contract with the instructor to take a make-up examination or complete an assignment within a mutually agreed upon time after the absence.

**Obtaining Final Course Grades Using eConnect:**
Final grade reports are no longer mailed. Convenient access is available online at [www.econnect.dcccd.edu](http://www.econnect.dcccd.edu). Use your student identification number when you log into eConnect, an online system developed by the DCCCD to provide you with timely information regarding your college record. Your grades will also be printed on your Students Advising Report, which is available in the Admissions Office.

**Financial Aid:**
If you are receiving Financial Aid grants or loans, you must begin attendance in all classes to be certified as attending class. In a Distance Learning Class, you must show participation in the class prior to the certification date by either e-mailing your instructor or logging on to eCampus. Do not drop or stop attending any class without consulting the Financial Aid Office. Changes in your enrollment level and failing grades may require that you repay financial aid funds. Failure to contact the instructor will result in your name being submitted to the Financial Aid Office as a “non-attendee”. Student who fail to attend or participate after the drop date are also subject to this policy.

**Repeating This Course:**
Effective for Fall Semester 2005, the Dallas County Community Colleges will charge additional tuition to students registering the third or subsequent time for a course. All third and subsequent attempts of the majority of credit and Continuing Education/Workforce Training courses will result in additional tuition to be charged. Developmental Studies and some other courses will not be charged a higher tuition rate. Third attempts include courses taken at any of the Dallas County Community Colleges since the Fall 2002 Semester. See Third Attempt to Enroll in a Course at: [http://www.dcccd.edu/thirdcourseattempt/](http://www.dcccd.edu/thirdcourseattempt/)

**Students With Learning, Mental and Physical Disabilities:**
Students requesting accommodation due to the presence of a disability must identify themselves in a timely fashion and demonstrate/document the need for accommodations through the Disability Services Office (DSO). For information regarding the rights and responsibilities of students with disabilities, contact DSO at (972) 860-8348 voice/TDD or email efcdso@dcccd.edu.
Student Email:
Legal privacy issues prevent your instructor from discussing your work or your grades on commercial e-mail accounts. If you wish to send your papers as attachments to an e-mail (and the instructor permits it), or if you have a question about your grade, you must open a student e-mail account. You may set up your account by going to http://www.dcccd.edu/netmail/home.html. The account is free.

Printing on Campus:
Printing in the Computer Lab (L-108), Library, and Learning Assistance Center will cost 5 cents a page. Students must bring a $1.00, $5.00, $10.00, or $20.00 bill to the lab to create an account. Accounts must be created before attempting to print. No change is made in the lab. Once the money is in the bill acceptor, it cannot be retrieved. Cash refunds are not possible. Accounts stay active as long as the account has value.

Standard of Conduct/Classroom Etiquette:
No food, drinks or tobacco products are allowed in Eastfield College classrooms. However; if your class is in a non-lab classroom your instructor may allow for food or drink.

CODE OF STUDENT CONDUCT: Web site address: http://www1.dcccd.edu/cat0506/ss/code.cfm

Responsibility
Each student shall be charged with notice and knowledge of the contents and provisions of the District’s policies, procedures, and regulations concerning student conduct. All students shall obey the law, show respect for property constituted authority, and observe correct standards of conduct. In addition to activities prohibited by law, the following types of behavior shall be prohibited.

Scholastic dishonesty shall constitute a violation of these rules and regulations and is punishable as prescribed by college policies. Scholastic dishonesty shall include, but not limited to, cheating on a test, plagiarism, and collusion.

“Cheating on a test” shall include:

- Copying from another student’s test paper
- Using test materials not authorized by the person administering the test.
- All forms of academic dishonesty, including cheating, fabrication, facilitating academic dishonesty, plagiarism, and collusion.
- Collaborating with or seeking aid from another student during a test without permission from the test administrator.
- Knowingly using, buying, selling, stealing, or soliciting, in whole or in part, the contents of an unadministered test.
- The unauthorized transporting or removal, in whole or in part, of the contents of the unadministered test.
- Substituting for another student, or permitting another student to substitute for one’s self, to take a test.
- Bribing another person to obtain an unadministered test or information about an unadministered test.

“Plagiarism” shall be defined as the appropriating, buying, receiving as a gift, or obtaining by any means another’s work and the unacknowledged submission or incorporation of it in one’s own written work.
“Collusion” shall be defined as the unauthorized collaboration with another person in preparing written work for fulfillment of course requirements.

Students should be aware of disciplinary actions for all forms of academic dishonesty, including cheating, fabrication, facilitating academic dishonesty, plagiarism, and collusion. Your College Catalog and the DCCCD Catalog contain the entire Student Code of Conduct. In this course, you will receive a grade of “0” on that particular assignment or test if you are guilty of cheating on assignments, tests, or plagiarism. Please do not put yourself in a situation that would result in such action, Academic dishonesty is a serious offense in college.

Campus Police:
In addition to providing general law enforcement on campus, the campus police respond to all emergencies. In any emergency situation, you can get immediate help by any of the following methods:

- call 911 on any campus extension
- use any red phone in the hallways, or any "blue light" call box in the parking lots
- call 972-860-4290 from any off campus extension

Sexual Harassment:
Eastfield College has a zero tolerance policy on sexual harassment. All students shall report complaints of sexual harassment informally to the college Human Resources Director or formally to the Vice Chancellor of Educational Affairs.

DCCCD Emergency Operation Procedures:
Visit http://video.dcccd.edu/rtv/DO/emergency_dcccd.wmv

Emergency & Inclement Weather Procedures:
In case of emergency (which may include power or air conditioning outages, fires, etc.) or inclement weather conditions, Eastfield students should listen to KEOM-FM Radio Station (88.5) as the primary media source. In partnership with the Mesquite Independent School District, Eastfield College Administration will notify KEOM immediately after a decision is made to cancel classes on any given day of inclement weather or for emergency purposes. Students may also monitor other local radio and television stations. The earliest an announcement may be broadcast on KEOM Radio is 6 a.m. Students may also refer to the Eastfield College web page www.eastfieldcollege.com for the Inclement Weather announcement under News/Features.

ADDITIONAL RESOURCES
The Math Spot (http://www.eastfieldcollege.edu/as/Mathspot/index.asp) provides tutoring in Mathematics and Developmental Mathematics. Students are encouraged to take advantage of this service for additional help in their course work. The Math Spot is located in room C-201, and the phone number is 972-860-7062. Visit the link above for more information on tutors, hours of operation and policies.
### COURSE OUTLINE:

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### SYLLABUS REVISION:

The guideline in this syllabus may be changed, deleted, or amended any time by the instructor. The attached course outline is intended as an aid in helping you know your responsibilities for the semester. It is possible that some changes in the course outline or class policies will be made during the semester. Any changes that are made to the class policies or course outline will be announced in class.

Revised: 9/16/14