

South Plains College  
Mathematics Department  
**Linear Algebra – MATH 2318**  
Course Syllabus  
Summer I 2018

**Instructor:** Jay Driver  
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**Office Hours:** by appointment.

**Course Description:** MATH 2318. LINEAR ALGEBRA. (3:3:0) Prerequisite: MATH 2413.

This course is a survey of finite dimensional vector spaces, linear transformations and matrices, eigenvalues and eigenvectors. (copied from the current SPC catalog)

**Attendance:** Attendance and effort are the most important activities for success in this course. Class attendance may be taken at any time during the class period, so please do not be late or leave early. You may be dropped from this course with a grade of X or F if you are absent two consecutive classes or if you exceed three absences throughout the summer term. Be on time and turn off any cell phones before entering the classroom.

**Textbook:** Textbook references for this course may be any of the following:

- Larson, R., Edwards, B. H. & Falvo, D. C. (2004). Elementary Linear Algebra, Fifth ed. Boston, MA: Houghton Mifflin Company. ISBN 0-618-33567-6.
- Larson, R. & Falvo, D. C. (2009). Elementary Linear Algebra, Sixth ed. Boston, MA: Houghton Mifflin Company. ISBN 0-618-78376-8.
- Larson, R. (2013). Elementary Linear Algebra, Seventh ed. Boston, MA: Brooks/Cole. ISBN 978-1-133-11087-3.
- Larson, R. (2017). Elementary Linear Algebra, Eighth ed. Boston, MA: Cengage Learning. ISBN 978-1-305-65800-4.

**Assignments & Grading:** Homework assignments will be made at each class meeting. Keep all class materials (notes, handouts, homework, quizzes, and exams) organized in a notebook (3-ring binder). These materials are subject to be turned in for grading at any time. Please make certain all materials accompany you to each class meeting. No late assignments will be accepted. Daily work (homework, quizzes, notebooks) will count for 20% of the final grade, while all exams count for 80% of the final grade. Expect two major exams (25% each) throughout the course and a cumulative final exam (30%) at the end of the course. Your final average in the course will determine the letter grade posted on your transcript. This grade is determined by the following scale: A (90-100%), B (80-89%), C (70-79%), D (60-69%), F (0-59%).

Format for submitting assignments:

1. Write the problem.
2. Show all necessary work.
3. Clearly mark your answer.
4. Check your answers on Blackboard to make certain you are practicing correctly.

**Blackboard:** Blackboard is the online course management system that will be utilized for this course. This course syllabus, as well as any class handouts can be accessed through Blackboard. Login at <http://southplainscollege.blackboard.com>. The user name and password should be the same as the MySPC and SPC email.

User name: first initial, last name, and last 4 digits of the Student ID

Password: Original CampusConnect Pin No. (found on SPC acceptance letter)

Check Blackboard often for the latest announcements, tutoring schedule, and course supplements (handouts, online practice quizzes, additional notes, sample problems for practice, etc.). Free tutoring is also available at Building 2 on the Reese Campus.

**Supplies:** You will need a calculator capable of matrix algebra (the TI-84 graphing calculator works well), a minimal supply of graph paper, and a 3-ring binder. Calculators on cell phones or other electronic devices will not be allowed during testing.

**Disability:** Students with disabilities, including but not limited to physical, psychiatric, or learning disabilities, who wish to request accommodations in this class should notify the Disability Services Office early in the semester so that the appropriate arrangements may be made. In accordance with federal law, a student requesting accommodations must provide acceptable documentation of his/her disability to the Disability Services Office. For more information, call or visit the Disability Services Office at Levelland (Student Health & Wellness Office) 806-716-2577, Reese Center (Building 8) & Lubbock Center 806-716-4675, or Plainview Center (Main Office) 806-716-4302 or 806-296-9611.

South Plains College does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities. The following person has been designated to handle inquiries regarding the non-discrimination policies: Vice President for Student Affairs, South Plains College -1401 College Avenue, Box 5, Levelland, TX 79336, 806-894-9611.

**Campus Concealed Carry - Texas Senate Bill - 11** (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in South Plains College buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and South Plains College policy, license holders may not carry a concealed handgun in restricted locations. For a list of locations, please refer to the SPC policy at: ([http://www.southplainscollege.edu/human\\_resources/policy\\_procedure/hhc.php](http://www.southplainscollege.edu/human_resources/policy_procedure/hhc.php)).

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all South Plains College campuses. Report violations to the College Police Department at 806-716-2396 or 9-1-1.

## Linear Algebra Tentative Course Outline

MATH 2318.200 (MTWR 8:00 –9:55)

Summer I 2018

Reese Center, RC221

Week	Day	Date	Lesson Topics / Assignments / Exams
1	Monday	June 4	<i>Assignment 1:</i> Linear Systems & Gauss-Jordan Elimination (GJE)
	Tuesday	June 5	<i>Assignment 2:</i> Applications of Linear Systems & Summations
	Wednesday	June 6	<i>Assignment 3:</i> Matrix Operations & Properties
	Thursday	June 7	<i>Assignment 4:</i> Matrix Inverses
2	Monday	June 11	<i>Assignment 5:</i> Special Matrices & Determinants
	Tuesday	June 12	<i>Assignment 6:</i> Determinant Properties
	Wednesday	June 13	<i>Assignment 7:</i> Determinant Applications
	Thursday	June 14	<b>Exam 1 (25%)</b>
3	Monday	June 18	<i>Assignment 8:</i> Vector Spaces
	Tuesday	June 19	<i>Assignment 9:</i> Linear Independence
	Wednesday	June 20	<i>Assignment 10:</i> Basis and Dimension
	Thursday	June 21	<i>Assignment 11:</i> Rank & Change of Basis
4	Monday	June 25	<i>Assignment 12:</i> Vector Operations (part 1 of 2)
	Tuesday	June 26	<i>Assignment 13:</i> Vector Operations (part 2 of 2)
	Wednesday	June 27	<i>Assignment 14:</i> Linear Transformations
	Thursday	June 28	<b>Exam 2 (25%)</b>
5	Monday	July 2	<i>Assignment 15:</i> Transition Matrices & Similarity
	Tuesday	July 3	<i>Assignment 16:</i> Eigenvalues / Eigenvectors
	Thursday	July 5	<i>Assignment 17:</i> Diagonalization / Orthogonal Diagonalization
6	Monday	July 9	<i>Assignment 18:</i> Applications of Eigenvalues & Eigenvectors
	Tuesday	July 10	<b>Final Exam (30%)</b>