Course Description: This course develops the techniques and theory needed to solve and classify systems of linear equations. Solution techniques include row operations, Gaussian elimination, and matrix algebra. It investigates the properties of vectors in two and three dimensions, leading to the notion of an abstract vector space. Vector space and matrix theory are presented including topics such as inner products, norms, orthogonality, eigenvalues, eigenspaces, and linear transformations. Selected applications of linear algebra are included. This 4 unit course transfers to UC and CSU.

Student Learning Outcomes:

- Demonstrate knowledge of linear systems, matrices and vector spaces, including terminology and notation.
- Apply fundamental principles including the laws and theorems arising from the concepts of linear algebra covered in this course.
- Use the course material, along with technology, to solve applied problems.

Prerequisite: Math 3B (or qualifying score on the placement test & proof of Calculus II)

Textbook: "Linear Algebra and its Applications" by David Lay, 4th Edition. A student study guide is also available, but not required.

Calculator: A graphing calculator is required for this course. I will use a TI-84 in class.

Office Hours: I am available at these times to help you with your coursework, so please drop by or call whenever you have questions or want to talk to me about the class. No appointment is needed for these times; other times to meet can also be arranged.

<table>
<thead>
<tr>
<th>MTWTh</th>
<th>8:30–9am</th>
<th>SM 3B</th>
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<tbody>
<tr>
<td>Tuesdays</td>
<td>12:45-2pm</td>
<td>Math Resource Center</td>
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COURSE REQUIREMENTS AND GRADES

1. There will be 3 exams, on Mondays. **The exam dates are Sept. 23, Oct. 21 and Nov. 18.** There are no makeup exams. If you must miss an exam and have a valid excuse, your final exam score will be used to replace that exam score.

2. 10 short quizzes will be given (on Wednesdays, except on the first and last Wednesday of the semester and no quiz on exam weeks). If you miss a quiz, you will not be allowed to make it up. One quiz score will be dropped.

3. Homework will be collected and graded. Two homework scores will be dropped. Late homework will be accepted with a 10% penalty each class day that it is late. Homework can be redone to make up points you miss (see homework directions sheet for details).

4. The cumulative final exam will be held on **Monday, December 9, 11:50 am–1:50 pm.**
5. Your course grade will be a weighted average of the four components:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Exams</td>
<td>45%</td>
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<tr>
<td>Quizzes</td>
<td>15%</td>
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<tr>
<td>Homework</td>
<td>20%</td>
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<tr>
<td>Final Exam</td>
<td>20%</td>
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</tbody>
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**GRADE SCALE:**

- A 90 - 100%
- B 80 - 89%
- C 70 - 79%
- D 60 - 69%
- F 0 - 59%

**ANGEL:** Updates on your grades will be posted on the Angel website [http://wvmccd.angellearning.com](http://wvmccd.angellearning.com). Go to the Report tab, set the Category to Grades, then hit Run. Be sure to log into Angel regularly to check on your progress and to see course announcements and handouts (like exam review & solutions) that you might find helpful.

**IF YOU NEED HELP:** If you are having trouble with the course material, please come see me right away. If you want to explore getting help from other sources on campus, the Math Resource Center (Room SM 5) and Tutorial Services (behind the library) are staffed by a combination of faculty and student tutors for free drop-in help. **To use the Math Resource Center, you must register for the free (0 units) class LS110M, Section 28777.**

Many students find it helpful to become part of a study group, working together on homework problems and exam preparation. You can meet in the Math Resource Center whenever it is open and group study rooms are also available in the campus library.

**DROPPING THE COURSE:** It is your responsibility to withdraw by notifying the Office of Admissions and Records. If you do not drop by the deadline (November 15), you may receive a failing grade in the course, even if you have stopped attending.

**ATTENDANCE & BEHAVIOR:** I expect you to come to class regularly, to arrive on time and to stay until class is dismissed. You may be dropped for missing 2 weeks of class sessions if you do not contact me to explain your absences. Remain focused on coursework, participate actively in course-related discussions and group work, and show maturity and respect for others in your words and actions. Cheating will not be tolerated and will result in a 0% score. Phones must be set to silent mode during class and must be turned off during exams. No texting during class.

**STUDENTS WITH DISABILITIES:** West Valley College makes reasonable accommodations for persons with documented learning or physical disabilities. Students should notify the Disability and Educational Support Program (DESP) at (408) 741-2010 (voice) or (408) 741-2658 (TTY) of any special needs (for extended test time, etc.) as soon as possible and also please let me know if I am to send your exams to DESP.

**SAFETY ISSUES:** In the event of an emergency or drill, such as for a fire or earthquake, listen for instructions from your instructor.