**Syllabus of Math 3312: Linear Algebra**

4 credit hours, Summer 2013

Instructor: Dr. Taixi Xu, Office D-122, email: [txu@spsu.edu](mailto:txu@spsu.edu)

Meetings: Section 001: 10:00am –11:35am MTRF in D-220

Office Hours: 2:45pm – 4:00pm MTRF.  
 If you would like to meet me other times, we can make an appointment by   
 email.

Text Book: **Linear Algebra and Its Application**, 4th ed. by David Lay, Pearson   
 Addison Wesley, ISBN-13: 978-0-321-38517-8, ISBN-10: 0-321-38517-8   
 Chapters 1 - 7.

Calculator: A TI calculator is required.

Learning Upon completing this course students should be able to:  
Outcomes: 1. Define and use vector operations in two and three dimensions.  
 2. Define and use vector methods to analyze plane and space curves, and   
 curvilinear motion.  
 3. Define and use the standard techniques of multivariable calculus, both   
 differential and integral, and utilize them to solve selected applied   
 problems.

Evaluation: There will be four tests worth 100 points each, and a comprehensive final  
exam worth 150 points. Quizzes will be worth a total of 100 points. The lowest test score will be dropped. 50 points will be reserved for class participation. The grades may be curved to a normal distribution if necessary at the end of the semester.

Grading: Tests: 300 points 90% - 100% Grade A  
Quizzes: 100 points 80% - 89% Grade B  
Class Participation: 50 points 70% - 79% Grade C  
Final Exam: 150 points 60% - 99% Grade D  
Total: 600 points Below 60% Grade F

Schedule: Test 1 – Mon. Jun. 3  
Test 2 – Mon. Jun. 17  
Test 3 – Fri. Jun. 29  
Test 4 – Thur. Jul. 11  
Final Exam: Mon. Jul. 15: 10:00-12:00

Makeups: Make-up exams will only be given at the discretion of the instructor, and   
with a valid excuse for the absence. You must contact the instructor by email before the exam or quiz if you need to arrange a make-up.

Homework: Homework will be assigned regularly and should be done on time. Some of them will be discussed during the next class. Remember that you cannot learn this subject without doing the homework.

Attendance: Regular attendance is essential. You are strongly recommended to attend every class. A signup sheet will be passing around to keep track of attendance.

Cell Phones: Please turn off all cell phones before class begins. Except in the case of an emergency, cell phone use, including texting, is not permitted in this class.

Honor Code: SPSU has an Honor Code and a new procedure relating to when academic misconduct is alleged. All students should be aware of them. Information about the Honor Code and the misconduct procedure may be found at <http://spsu.edu/honorcode/>

Disability Students with disabilities who believe that they may need   
Statement: accommodations in this class are encouraged to contact the counselor   
 working with disabilities at (678)915-7226 as soon as possible to better   
 insure that such accommodations are implemented in a timely fashion.

Important Mon. May 20 First Day of Class  
Dates: Mon. May. 27 Memorial Day Holiday  
 Fri. Jun. 14 Withdrawal Day  
 Thur. Jul. 4 Independence Day Holiday  
 Fri. Jul. 12 Last Day of Class Summer 2013  
 Mon. Jul 15 Final Exam

**Homework Assignment**

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| **Section** | **Date Assigned** | **Homework Problems** |
| §1.1 |  | Pg. 10: 1-10, 23, 24. |
| §1.2 |  | Pg. 21: 1-29 (odd) |
| §1.3 |  | Pg. 32: 1-15 (odd), 23, 24 |
| §1.4 |  | Pg. 40: 1-13 (odd), 14, 18, 22, 23, 24 |
| §1.5 |  | Pg. 47: 1-13 (odd), 17, 23, 24, 29, 31, 34 |
| §1.7 |  | Pg. 60: 1-7, 15-27, 33-38 |
| §1.8 |  | Pg. 68: 1-11 (odd) 18, 20, 21, 22, 27, 29, 31, 34 |
| §1.9 |  | Pg. 78: 1-11 (odd), 18, 22, 23, 24, 34 |
| §2.1 |  | Pg. 100: 1-11 (odd), 15, 16, 17-29 (odd) |
| §2.2 |  | Pg. 109: 1-13 (odd), 17-25 (odd), 29-32 |
| §2.3 |  | Pg. 115: 1-23 (odd), 28, 33 |
| §2.8 |  | Pg. 151: 1-25 (odd) |
| §3.1 |  | Pg. 167: 1-21 (odd), 25-30, 39, 41 |
| §3.2 |  | Pg. 175: 1-29 (odd), 39, 40, 41 |
| §4.1 |  | Pg. 195: 1-18, 23, 24. [25-29 optional] |
| §4.2 |  | Pg. 205: 1-25 (odd), 31, 33 |
| §4.3 |  | Pg. 213: 1-15 (odd), 19-24, 31, 34 |
| §4.4 |  | Pg. 222: 1-15 (odd), 16, 27 |
| §4.5 |  | Pg. 229: 1-23 (odd), 29 |
| §4.6 |  | Pg. 236: 1-27 (odd) |
| §4.7 |  | Pg. 242: 1-13 (odd) |
| §5.1 |  | Pg. 271: 1-29 (odd) |
| §5.2 |  | Pg. 279: 1, 3, 9, 11, 13, 15, 21, 24 |
| §5.3 |  | Pg. 286: 1, 5, 7, 11, 21, 22, 23, 27 |
| §5.4 |  | Pg. 293: 1, 3, 5, 7, 9, 19, 21 |
| §6.1 |  | Pg. 336: 1-23 (odd), 27, 29 |
| §6.2 |  | Pg. 344: 1-29 (odd) |
| §7.1 |  | Pg. 399: 1-21 (odd), 25 |
| §7.1 |  | Pg. 399: 1-17 (odd), 21 |