## SYLLABUS

| Instructor: | Dr. Kejian Shi |
| :--- | :--- |
| Office: | S-16A |
| Office Phone: | (408) 864-8481 |
| Office Hour: | MTWThF: 3:00pm - 4:00pm or by appointment |

Prerequisites: Math 1D (with a grade of C or better), or equivalent
Textbook: Elementary LINEAR ALGEBRA, $12^{\text {th }}$ Ed, by Howard Anton

| Attendance: | Students are expected to attend all classes on time. It is the students' responsibility to drop by <br> the appropriate deadline. Petitions to drop after the dead line will not be considered by the |
| :--- | :--- |
|  | instructor |

Homework: Homework is the key to success in this class. Plan to devote a minimum of TWO hours to homework for each class lesson.

Quizzes: $\quad$ Three Quizzes (33, 33, and 34 points) will be given during the class time period. No makeup quizzes. Quiz problems are similar to homework problems and lecture examples.

Midterms: Two one-class-hour midterm examinations (100 points each) will be given during the class time period. No makeup except for extenuating circumstances assuming the student notifies the instructor as soon as the emergency arises.

Final Exam: One two-hour comprehensive examination will be given on Wednesday, June 24, 2020. from 7:00am-9:00am Any student missing the final will receive an F grade for the course.

Integrity: Any types of cheating are not tolerated. Corresponding school rules will be followed.

| Grading: | Distribution |  | Scale |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Grade | Points | Percentage |
|  |  |  | A+ | 473-500 | 95\%-100\% |
|  | Quizzes | 100 | A | 448-472 | 90\%-94\% |
|  |  |  | A- | 438-447 | 88\%-89\% |
|  |  |  | B+ | 423-437 | 85\%-87\% |
|  |  |  | B | 398-422 | 80\%-84\% |
|  | Midterms | 200 | B- | 388-397 | 78\%-79\% |
|  |  |  | C+ | 373-387 | 75\%-77\% |
|  |  |  | C | 323-372 | 65\%-74\% |
|  |  |  | D+ | 298-322 | 60\%-64\% |
|  | Final Exam | 200 | D | 288-297 | 58\%-59\% |
|  |  | ------ | D- | 273-287 | 55\%-57\% |
|  | Tota | 500 | F | 0-272 | 0\%-54\% |

Math 1B-9 Tentative Schedule (Spring 2020):

|  | MON | TUE | WED | THUR | FRI | SAT | SUN | Wk |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| APL | $\begin{array}{r} 13 \\ \mathbf{1 . 1 , 1 . 2} \\ \hline \end{array}$ | $\begin{array}{r} 14 \\ \text { 1.2, 1.3 } \\ \hline \end{array}$ | 1.4, 1.5 | $\begin{array}{r} 16 \\ \mathbf{1 . 5 , 1 . 6} \\ \hline \end{array}$ | $\begin{array}{rr} 17 \\ 1.6 \\ \hline \end{array}$ | 18 | 19 | 1 |
| APL | $\begin{array}{rr\|} \hline & 20 \\ 1.7 & \\ \hline \end{array}$ | $\begin{array}{rr\|} \hline 21 \\ \mathbf{1 . 8} \\ \hline \end{array}$ | Review <br> Quiz \#1 | $\begin{array}{r} 23 \\ 2.1 \\ \hline \end{array}$ | $\begin{array}{r} 24 \\ 2.2 \\ \hline \end{array}$ | 25 Last day to add Drop for refund | 26 <br> Last day to drop <br> with no record | 2 |
| $\begin{array}{\|c\|} \hline \mathrm{APL} \\ 1 \\ \mathrm{MAY} \\ \hline \end{array}$ |  | $\begin{array}{r} 28 \\ \text { 3.1, 3.2 } \\ \hline \end{array}$ | $\begin{array}{r} 29 \\ \mathbf{3 . 2 , 3 . 3} \\ \hline \end{array}$ | $\begin{array}{r} 30 \\ \hline 3.4 \\ \hline \end{array}$ | $\begin{array}{\|r\|} \hline \\ \hline \end{array}{ }^{1}$ | 2 | 3 | 3 |
| MAY |  | Exam \#1 ${ }^{5}$ | $6$ <br> Solution | 4.1 |  | 9 | 10 | 4 |
| MAY | $\square$ <br> 4.3 | $\begin{array}{r} 12 \\ \hline 4.4 \\ \hline \end{array}$ | $4.5 \begin{array}{r}13 \\ \\ \end{array}$ | $\begin{array}{rr} \hline 14 \\ 4.6 \\ \hline \end{array}$ | $\square$ | 16 | 17 | 5 |
| MAY | $\square$ <br> 4.8 | $\square$ | Review Quiz\#2 | $\begin{array}{rr\|} \hline 21 \\ 5.1 \\ \hline \end{array}$ | $\square$ | 23 | 24 | 6 |
| MAY | 25 <br> MEM Orialday <br> holiday | $\square$ | 27 6.1, 6.2 | $\begin{array}{r} 28 \\ 6.2,6.3 \\ \hline \end{array}$ | $\square$ <br> 6.4 | 30 | 31 | 7 |
| JUN | Review ${ }^{1}$ | Exam \#2 | $3$ $\square$ <br> Solution | 7.14 | 5 <br> Drop with "W" <br> 7.2 | 6 | 7 | 8 |
| JUN | $\square$ <br> 7.3 | $\square$ <br> 7.4 | 10 <br> 7.5 | Review Quiz\#3 | $\begin{array}{\|r\|r\|} \hline & 12 \\ \mathbf{8 . 1} & \\ \hline \end{array}$ | 13 | 14 | 9 |
| JUN |  | $\square$ | $\square$ | $\square$ | 19 <br> Review | 20 | 21 | 10 |
| JUN | 22 <br> Final Exam <br> 11:30am-1:30 | 23 | 24 | 25 | 26 | 27 | 28 | 11 |
| JUN <br> / <br> JUL | 29 SUMMER BEGINS | 30 | 1 | 2 | 3 | 4 | 5 | 1 |

Homework problem list:

| Sections | Problems |
| :---: | :--- |
| 1.1 | $1,4,7,10, \ldots, 25$ (every third); True-False Exercise. |
| 1.2 | $1,6,11,16, \ldots, 41$ (every fifth); True-False Exercise. |
| 1.3 | $1,6,11,16, \ldots, 36 ;$ True-False Exercise. |
| 1.4 | $1,6,11,16, \ldots, 56 ;$ True-False Exercise. |
| 1.5 | $1,4,7,10, \ldots 31 ;$ True-False Exercise. |
| 1.6 | $1,4,7,10, \ldots 22 ;$ True-False Exercise. |
| 1.7 | $1,6,11,16, \ldots 4 ;$ True-False Exercise. |
| 1.8 | $1,6,11,16, \ldots 46 ;$ True-False Exercise. |
| 2.1 | $1,6,11,16, \ldots 41 ;$ True-False Exercise. |
| 2.2 | $1,4,7, \ldots, 34 ;$ True-False Exercise. |
| 2.3 | $1,4,7, \ldots, 34 ;$ True-False Exercise. |
| 3.1 | $1,4,7,10, \ldots 31 ;$ True-False Exercise. |
| 3.2 | $1,4,7, \ldots, 34 ;$ True-False Exercise. |
| 3.3 | $1,6,11,16, \ldots, 41 ;$ True-False Exercise. |
| 3.4 | $1,4,7,10, \ldots, 22 ;$ True-False Exercise. |
| 3.5 | $1,6,11,16, \ldots, 41 ;$ True-False Exercise. |
| 4.1 | $1,4,7,10, \ldots 28 ;$ True-False Exercise. |
| 4.2 | $1,4,7,10, \ldots 28 ;$ True-False Exercise. |
| 4.3 | $1,4,7,10, \ldots 22 ;$ True-False Exercise. |
| 4.4 | $1,4,7,10, \ldots 31 ;$ True-False Exercise. |
| 4.5 | $1,4,7,10, \ldots 31 ;$ True-False Exercise. |
| 4.6 | $1,4,7,10, \ldots 25 ;$ True-False Exercise. |
| 4.7 | $1,4,7,10, \ldots 19 ;$ True-False Exercise. |
| 4.8 | $1,4,7,10, \ldots 31 ;$ True-False Exercise. |
| 4.9 | $1,6,11,16, \ldots, 41 ;$ True-False Exercise. |
| 5.1 | $1,4,7,10, \ldots 37 ;$ True-False Exercise. |
| 5.2 | $1,6,11,16, \ldots, 41 ;$ True-False Exercise. |
| 5.3 | $1,4,7,10, \ldots 34 ;$ True-False Exercise. |
| 6.1 | $1,6,11,16, \ldots 46 ;$ True-False Exercise. |
| 6.2 | $1,6,11,16, \ldots 51 ;$ True-False Exercise. |
| 6.3 | $1,6,11,16, \ldots 51 ;$ True-False Exercise. |
| 6.4 | $1,4,7,10, \ldots 31 ;$ True-False Exercise. |
| 7.1 | $1,4,7,10, \ldots 28 ;$ True-False Exercise. |
| 7.2 | $1,4,7,10, \ldots 28 ;$ True-False Exercise. |
| 7.3 | $1,4,7,10, \ldots 37 ;$ True-False Exercise. |
| 7.4 | $1,4,7,10, \ldots 22 ;$ True-False Exercise. |
| 7.5 | $1,6,11,16, \ldots 46 ;$ True-False Exercise. |
| 8.1 | $1,4,7,10, \ldots 37 ;$ True-False Exercise. |
| 8.2 | $1,6,11,16, \ldots 46 ;$ True-False Exercise. |
| 8.3 | $1,4,7,10, \ldots 25 ;$ True-False Exercise. |
| 8.4 | $1,4,7,10, \ldots 22 ;$ True-False Exercise. |
| 8.5 | $1,4,7,10, \ldots 31 ;$ True-False Exercise. |

## Student Learning Outcome(s):

*Construct and evaluate linear systems/models to solve application problems.
*Solve problems by deciding upon and applying appropriate algorithms/concepts from linear algebra.
*Apply theoretical principles of linear algebra to define properties of linear transformations, matrices and vector spaces.

