# SYLLABUS 

| Instructor: | Dr. Kejian Shi <br> shikejian @fhda.edu <br> Email: |
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|  |  |
| Prerequisites: | Math 1D (with a grade of C or better), or equivalent |
| Textbook: | Elementary LINEAR ALGEBRA, $12^{\text {th }}$ Ed, by Howard Anton |

Attendance: This class is an online class. My daily lecture videos will be posted on the Canvas. Students are expected to follow the schedule to watch and study the videos. The videos can be watched multiple times. Questions will be answered through email. (It is the students' responsibility to drop by the appropriate deadline. Petitions to drop after the deadline 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 (each lecture video).

Quizzes: $\quad$ Three Quizzes (33, 33, and 34 points) will be given from 8:00pm-9:00pm on the quiz day (see schedule). No makeup quizzes. The lowest quiz score will be replaced by the average of the two highest quiz scores.

Midterms: Two midterm examinations (100 points each) will be given from 8:00pm-10:00pm on the midterm exam day (see schedule). No makeup tests. The lowest midterm score will be replaced by the percentage of the final exam if the final percentage is higher.

Final Exam: One comprehensive final examination will be given from 8:00pm-11:00pm on Thursday, August 4, 2022. 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\% |
|  | Total | 500 | F | 0-272 | 0\%-54\% |

## Tentative Schedule:

|  | MON | TUE | WED | THU | FRI | SAT | SUN |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| June <br> I <br> July | $\text { 1.1, } 1.2$ | $\text { 1.3, } 1.4$ | Last day to get <br> refund <br> 1.5, 1.6 | 1.7, 1.8 <br> Quiz \#1 <br> 8:00pm-9:00pm | 1 | 2 | 3 |
| July | 4 <br> Holiday (No class) | 5 <br> census day $\text { 2.1, 2.2, } 2.3$ | $\text { 3.1, 3.2, } 3.3$ | 3.4, 3.5 <br> TEST \#1 <br> 8:00pm-10:00pm | 8 | 9 | 10 |
| July | 11 $4.1,4.2,4.3$ | $\text { 4.4, } 4.5$ | $\text { 4.6, } 4.7$ | $\begin{gathered} 14 \\ \text { 4.8, } 4.9 \\ \text { Quiz \#2 } \\ \text { 8:00pm-9:00pm } \end{gathered}$ | 15 | 16 | 17 |
| July | $18$ $5.1,5.2$ | $5.3,6.1$ | $\text { 6.2, } 6.3$ | 6.4 TEST \#2 8:00pm-10:00pm | 22 | 23 | 24 |
| July | $25$ $\text { 7.1, } 7.2$ | $26$ $\text { 7.3, } 7.4$ | $27$ <br> Last day to drop with "W" 7.5 | $\begin{gathered} \\ 8.1 \\ \text { Quiz \#3 } \\ \text { 8:00pm-9:00pm } \\ \hline \end{gathered}$ | 29 | 30 | 31 |
| August | $\text { 8.2, } 8.3$ | $\text { 8.4, } 8.5$ | Review | FINAL EXAM 8:00pm-11:00pm | 5 | 6 | 7 |

## 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 | $1,6,11,16, \ldots 46$ 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.

## Office Hours:

