Course: MATHD 043.26, Pre-calculus III, Advanced Topics. CRN \# 40250-01 Units - 5.
Meetings: MW, Time - 4:00 to 6:15 pm. Room-DA- G 5
Prerequisite: Math 41 and Math 42 with C or better grade.
Textbook: Precalculus with limits, $3^{\text {rd }}$ Edition by Larson.
Equipment: $\quad$ TI-83 plus/ TI 84 graphing calculator is required.
Instructor: H. K. SHAH. Email: shahhemendra@fhda.edu
Office hours: MW, 3:00 to 3:50 p.m. Room E 37.
WebAssign course name: Math 43.26, Precalculus 3, Math 43, Spring 2019, HKSHAH, De Anza College.
Class Key: deanza 27434169
Attendance: Students are needed to attend all class meetings without tardy. Student with three recorded absences will be dropped from the course. If student decides to drop the course, it is his/her responsibility to drop the course. There are 10 points for attendance, 5 points will be deducted for each absence. Disappearing from the class doesn't qualify for getting ' $W$ ' for the course, but will get " $F$ " grade.

## SPACE FOR SLO

I shall cover chapters 7 to 11 of the book. It covers (1) Matrices and determinants (2) Graph and analyze curves in polar coordinates and in parametric equations (3) Solve systems of inequalities and systems of non-linear equations (4) Perform operations with vectors in 2 and 3 dimensional space (5) Explore equations of lines and planes in 3 -space, as well as the graphs of surfaces (6) Develop and use the formulas for arithmetic and geometric sequences and series (7) Write proofs using mathematical induction and develop the binomial theorem. (8) Study of Hyperbolic Functions. It is a very intensive course, needing ten to fifteen hours of study time outside the class. We are going to use TI-83 graphing calculator intensively.

Homework: Students will do homework on internet using Enhanced WebAssign program at web address www.webassign.net/cengage. You need to get the access code when you buy the book. WebAssign course name and class key information are written above. Late homework will not be accepted for grading purpose.

Examinations: There will be three midterm tests each of one hour, and three quizzes each of 20-25 minutes. There will be no make-ups for missed tests/final or quizzes. If student missed only one test due to unavoidable circumstance, and I am notified in advance or quickly; the final exam score $\%$ will be used to replace score of missed test, given student passed in final exam (scored at least 85/130). Students who attended all 3 Tests, and passed in final exam (scored at least 85/130), then lowest scored test will be replaced by the $\%$ of final exam, if did better in final. A comprehensive final examination will be of two hours, during 4:00 to 6:00 p.m. on Wednesday, June 26, 2019 in our classroom. Students absent in the final exam will get $F$ grade. All students need to save corrected returned papers of quizzes and midterm tests. I may need it in unusual situation. Cell phone is not allowed in all exams.

Disruptive behavior: De Anza College will enforce all policies and procedures set forth in the Standards of Students Conduct (refer catalogue). Any student disrupting a class may be asked to leave that class. Administrative follow-up may result.

Academic Integrity: It is expected that all students will pursue their studies with integrity and honesty; however, all students should know that incidents of academic dishonesty like cheating and plagiarism are taken very seriously. Students involved in cheating will be dropped and get $F$ for the course. Further disciplinary action by administration will follow.

Grades:

| Grade scale | Points range | Percentage range | Examination | points |
| :---: | :---: | :---: | :---: | :---: |
| A+4.0 | 476 to 500 | $95+$ to $100 \%$ | Three Tests | 3x75 = 225 |
| A 4.0 | 456 to 475 | 91 + to $95 \%$ | Three Quizzes | $3 \times 25=75$ |
| A_3.7 | 436 to 455 | 87+ to 91 \% | Homework | 50 |
| B+3.3 | 416 to 435 | 83+ to 87 \% | Class attendance | 10 |
| B 3.0 | 396 to 415 | 79+ to $83 \%$ | Final examination | 140 |
| B_2.7 | 376 to 395 | 75+79\% | Total points | 500 |
| $\mathrm{C}+2.3$ | 351 to 375 | 70+75\% |  |  |
| C 2.0 | 326 to 350 | 65+ to 70 \% |  |  |
| D+1.3 | 306 to 325 | 61+ to 65 \% |  |  |
| D 1.0 | 296 to 305 | 59+ to 61 \% |  |  |
| D_0.7 | 276 to 295 | 55+59\% |  |  |
| F 0.0 | 0 to 275 | 0 to $55 \%$ |  |  |

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| Week \# Month | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1$ <br> April | $\begin{aligned} & 8 \\ & 7.1,7.3 \end{aligned}$ | 9 | $\begin{aligned} & \hline 10 \\ & 7.5,8.1 \end{aligned}$ | 11 | 12 | 13 |
| 2 | $\begin{aligned} & 15 \\ & \text { Quiz-1, HW-1 } \\ & 8.2 \end{aligned}$ | 16 | $\begin{aligned} & 17 \\ & \mathbf{8 . 3 , 8 . 4} \end{aligned}$ | 18 | 19 | 20 <br> Last day to add classes. <br> Last day to drop. |
| 3 | $\begin{aligned} & \hline 22.4,8.5 \end{aligned}$ | 23 | $\begin{aligned} & \hline 24 \\ & \text { Test -1, HW-2 } \end{aligned}$ | 25 | 26 | 27 |
| 4 | $\begin{aligned} & 29 \\ & 10.6,10.7 \end{aligned}$ | 30 | $\begin{aligned} & \text { May } 1 \\ & \mathbf{1 0 . 8 , 1 0 . 9} \end{aligned}$ | 2 | $3$ <br> Pass/no pass grade request | 4 |
| 5 May | 6 <br> 10.9. <br> Quiz-2, HW-3 | 7 | 8 <br> Hyperbolic functions | 9 | 10 | 11 |
| 6 | 13 <br> Hyperbolic functions | 14 | $\begin{aligned} & 15 \\ & \text { Test-2, HW-4 } \end{aligned}$ | 16 | 17 | 18 |
| 7 | $\begin{aligned} & \text { 20 } \\ & 9.1,9.2 \end{aligned}$ | 21 | $\begin{aligned} & \hline 22 \\ & 9.3,9.4 \end{aligned}$ | 23 | 24 | 25 |
| 8 | $27$ <br> Memorial Day | 28 | $\begin{aligned} & \hline 29 \\ & 9.4,9.5 \end{aligned}$ | 30 | 31 <br> Last day to drop with 'W'. <br> Enforced. | June 1 |
| 9 June | $\begin{aligned} & 3 \\ & \text { Quiz-3, HW-5 } \\ & \text { 11.1 } \\ & \hline \end{aligned}$ | 4 | $\begin{aligned} & 5 \\ & 11.2,11.3 \end{aligned}$ | 6 | 7 | 8 |
| 10 | $\begin{aligned} & 10 \\ & 11.4 \end{aligned}$ | 11 | 12 <br> Review <br> Test-3, HW-6 | 13 | 14 | 15 |
| 11 | $17$ <br> Whole Review | 18 | 19 <br> Whole Review | 20 | 21 | 22 |
| 12 | 24 <br> Blank day. | 25 | 26 <br> Final Examination 4:00 to 6:00 p.m. | 27 | 28 | 29 |


| HW/Quiz/Test \# $\rightarrow$ | 1 | 2 | 3 | 4 | 5 | 6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Homework assignment Sections/Chapters $\rightarrow$ | Chap. 7 | Chap. 8 | 10.6 to 10.9 | Hyperbolic functions | 9.1 to 9.5 | 11.1 to 11.4 |
| Sections to be covered For QUIZ $\rightarrow$ | Chap. 7 | 10.6 to 10.9 | 9.1 to 9.5 | ---------- | -------- | ------------ |
| Chapters/sections to be Covered for TEST $\rightarrow$ | Chapters $7,8 .$ | Chap. 10, Hyperbolic functions | Chapters $9,11$ | -------- | -------- | ------------ |

Final exam is comprehensive, show your work type exam, covering whole syllabus. No multiple choice questions.

## Student Learning Outcome(s):

*Analyze, investigate, and evaluate linear systems, vectors, and matrices related to two or three dimensional geometric objects.
*Graph and analyze regions/curves represented by inequalities or trigonometric, polar, and parametric equations, including conic sections.
*Analyze, develop, and evaluate formulas for sequences and series; Justify those formulas by mathematical induction.

