

Math 43 - 03 MTWThF 08:30 AM - 09:20 AM, Room E31, CRN 40218 Office Hours: MTTh 12:30 - 1:45 PM and Wednesday 1:30 - 2:45 PM

**Precalculus III: Advanced Topics** 

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**Prerequisite:** MATH 41 and MATH 42 (both with a grade of C or better); or a satisfactory score on Calculus Readiness Test within the last calendar year.

**Course Description:** Hyperbolic functions, parametric equations, systems of equations and inequalities, vectors, lines and planes, sequences and series, polar coordinates, mathematical induction, and the binomial theorem.

**Textbook**: Precalculus with Limits; 3rd edition, by Ron Larson.

**Calculator:** TI-83 Plus/TI-84 Plus calculator recommended. Cell phone calculators are not allowed during quizzes or exams.

**Software:** All homework will be done online using WebAssign. You will need to register at www.webassign.net to use this internet-based software. You will need the class key given by me in order to self-register. Class Key: **deanza 9077 6968** 

**Tutoring Services:** The De Anza campus has a tutorial center for math students where students can get "drop in" help. Students can also register to have a regular, assigned tutor for help throughout a quarter. The tutoring center is located in room S-43.

**Student Conduct:** Do not cheat. If you have a question during a test, you are only allowed to talk to the instructor. Anyone caught cheating on an exam will receive an automatic 0 and be reported to the Dean of the PSME Division. You can be expelled from the class and possibly from De Anza College with a grade of F if you are caught cheating.

**Classroom Behavior:** Please show courtesy for me and your fellow classmates by turning off and putting away your cell phone during class time, especially during exams. Please do not take calls or text message during class. Do not talk while fellow classmates or I are talking. If you have any type of learning disability, please let me know during the first week of classes so that special arrangements can be made, if necessary.

## **Student Learning Objectives:**

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



**Time Management:** You should expect to spend at least 2 hours outside of the classroom for every 1 hour inside the classroom. This time outside of the classroom may include homework, reviewing notes, studying, and attending office hours. If you want to be successful in this class you will need to put time and effort into it.

**Attendance:** Students are expected to attend every class meeting. Make sure you sign the attendance roster at each class meeting. If you miss a day, it is solely your responsibility to seek out another student or myself to find out what you missed. You cannot expect to do well in the class if you fail to attend lectures.

**Homework:** Homework will be assigned every class meeting online and will have a due date. All homework must be submitted by 11:59PM on the due date. You must set up an account by Friday, April 14, 2017 or you will be dropped from the class. If you have a homework problem you were not able to complete, you have the next class session to ask by putting the problem on the board. At the end of the quarter your lowest homework score will be dropped. Homework will count for 13% of your term grade.

**Quizzes:** There will be a quiz every week. Each quiz will be assigned online or in-class intermittently throughout the term to test your skills on the concepts we are covering in class and online. **NO** make-up quiz will be given. To compensate for this, I will drop your lowest quiz score. These quizzes will count for 12% of your grade.

**Midterms:** I will give three in class exams during the quarter. No notes will be allowed on any exams. These exams will be completed in class and will contain the materials covered in the lectures, online, and in the book. If you are unable to take an exam for any reason, **a makeup exam will not be given**. In the case of a documented emergency, I will replace a missing exam score with your final exam score. These exams will count for 50% of your term grade.

**Final Examination:** If you do not take the final exam, you **WILL NOT** receive a passing grade. There will be a comprehensive final examination on **Wednesday, June 28 from 07:00 AM - 09:00 AM.** This test will count for 25% of your term grade.

## Grade Breakdown:

| A+: 97 - 100% | B+: 87 - 88% | C+: 77 - 78% | D: 62 - 66%  |
|---------------|--------------|--------------|--------------|
| A: 92 - 96%   | B: 82 - 86%  | C: 69 - 76%  | D-: 60 - 61% |
| A-: 89 - 91%  | B-: 79 - 81% | D+: 67 - 68% | F: < 60%     |

## **Important Dates:**

- The last day to add classes is Saturday, April 22.
- The last day to drop for a full refund no record of grade is Sunday, April 23.
- The last day to request pass/no pass grade is Friday, May 5.
- The last day to drop with a "W" is Friday, June 2.



## Tentative Schedule for Math 43, Spring 2017

| Week | Monday                             | Tuesday                            | Wednesday  | Thursday                | Friday                  |
|------|------------------------------------|------------------------------------|--|-------------------------|-------------------------|
| 1    | April 10                           | April 11                           | April 12   | April 13                | April 14                |
|      | Syllabus                           | Section 7.1                        | Section 7.1  | Section 7.3             | Section 7.3             |
| 2    | April 17                           | April 18                           | April 19   | April 20                | April 21                |
|      | Section 7.5                        | Section 7.5                        | Section 8.1  | Section 8.1             | Section 8.2             |
| 3    | April 24                           | April 25                           | April 26   | April 27                | April 28                |
|      | Section 8.2                        | Section 8.3                        | Section 8.3  | Section 8.4             | Section 8.4             |
| 4    | May 1                              | May 2                              | May 3  | May 4                   | May 5                   |
|      | Section 8.5*                       | Section 8.5*                       | Review   | <b>Exam 1</b>           | Section 9.1             |
| 5    | May 8                              | May 9                              | May 10   | May 11                  | May 12                  |
|      | Section 9.1                        | Section 9.2                        | Section 9.2  | Section 9.3             | Section 9.3             |
| 6    | May 15                             | May 16                             | May 17   | May 18                  | May 19                  |
|      | Section 9.4                        | Section 9.4                        | Section 9.5  | Section 9.5             | Review                  |
| 7    | May 22                             | May 23                             | May 24   | May 25                  | May 26                  |
|      | <b>Exam 2</b>                      | Section 10.6                       | Section 10.6   | Section 10.7            | Section 10.7            |
| 8    | May 29                             | May 30                             | May 31   | June 1                  | June 2                  |
|      | <b>Memorial Day</b>                | Section 10.8                       | Section 10.8   | Section 10.9            | Section 10.9            |
| 9    | June 5                             | June 6                             | June 7   | June 8                  | June 9                  |
|      | Section 11.1                       | Section 11.1                       | Section 11.2   | Section 11.2            | Review                  |
| 10   | June 12                            | June 13                            | June 14  | June 15                 | June 16                 |
|      | <b>Exam 3</b>                      | Section 11.3                       | Section 11.3   | Section 11.4            | Section 11.4            |
| 11   | June 19<br>Hyperbolic<br>Functions | June 20<br>Hyperbolic<br>Functions | June 21<br>Final Review                                  | June 22<br>Final Review | June 23<br>Final Review |
| 12   | June 26<br>No class                | June 27<br>No class                | June 28<br><b>Final Exam</b><br><b>7:00 am - 9:00 am</b> | June 29<br>No class     | June 30<br>No class     |

This syllabus is subject to change at the instructor's discretion.

Section 8.5\* it is required to cover some application of matrices; instructors can select some topics to cover, but do not need to cover all of 8.5. In Chapter 8 both Cramer's rule and inverse matrices are optional. Covering inverse matrices is recommended, as they are needed for many of the applications of matrices in 8.5.