



# MATH 043 Pre-Calculus III

S17



## Prof. G. V. KRESTAS

Section: 21      MW 1:30-3:45, Room: MQ2  
Office :            S75c  
Phone:            (408) 864-8574  
Office Hour:      M-R 4:00 – 4:40; F 2:30-3:20  
Website:          [profgvk.weebly.com](http://profgvk.weebly.com)  
e-mail:            [krestasgeorge@fhda.edu](mailto:krestasgeorge@fhda.edu)

## Student Learning Outcomes

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.

## Course Objectives

- A. Graph and analyze curves in polar coordinates
- B. Graph and analyze parametric equations.
- C. Explore matrices, matrix reduction and determinants in the context of solving systems of linear equations
- D. Solve systems of inequalities and systems of non-linear equations
- E. Perform operations with 3D vectors
- F. Explore equations of lines and planes in 3-space.
- G. Develop and use sequences and series
- H. Write proofs using mathematical induction
- I. Use the binomial theorem to calculate binomial coefficients and to expand binomial expressions
- J. Examine the logic of conditional and bi-conditional statements as they appear in mathematical statements
- K. Examine Hyperbolic functions, their graphs and verify and use common hyperbolic identities, and solve equations containing hyperbolic expressions



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## Course Structure

Five hours lecture (60 hours total per quarter). This is an intensive and fast moving course, requiring a lot of practice for successful completion.

### Advisory

English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.

### Prerequisites

Qualifying score on the Math placement test within last calendar year; or Mathematics 114 or equivalent with a grade of C or better.

Text : *Precalculus with Limits, Larson 3<sup>rd</sup> Edition*

## Academic Integrity

De Anza College is committed to the highest standards of academic integrity and honesty. Dishonesty is unacceptable and **will not be tolerated**. If you are found cheating, looking at others' exams, plagiarizing or in collusion in dishonest activities, you will receive an "F" for that particular work and you may be dropped and/or reported to the Dean of Students for further disciplinary action. You are expected to abide with the ideals of academic integrity and accept personal responsibility for your work. During exams, protect your work. Any infringement will disqualify **both** parties.

## Attendance

**You must come to class prepared and on time!** Regular and punctual attendance is expected. Entering the classroom late or leaving before the class is dismissed, besides being rude and inconsiderate behavior for those present, **it disrupts the learning process**. Therefore, late arriving



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students or those leaving the class at will may not be able to **enter/re-enter** until the break. They will be marked as absent and and/or will be penalized accordingly (see "Sanctions" section). The classroom door will be locked five minutes after the start time and it will re-open at the break. **Therefore, take care of your physical needs before entering the classroom.**

## Classroom Decorum

**Learning is your responsibility.** However, you are expected to abide by the institution's Code of Student Conduct. Engaging in behaviors that distract or interrupt the instructor's ability to teach or the students from learning will not be tolerated. Sanctions imposed on violators may vary from a 10-point deduction to being asked to leave the classroom, dropped, and/or reported to the Dean of Students (see Sanctions section below).

The following is a partial list of **unacceptable** behaviors:

1. Using/playing with phones, earphones, laptops, tablets e.t.c. There is no need for any of these electronic devices for successful completion of this class. Unless otherwise directed by the instructor or have documentation from the Disability Resource Center stipulating the use of a specific device **all electronic devices**, especially phones, must be **turned off and out of sight during class**.
2. Using your phone, computer, or tablet as calculator.
3. Getting up at will to plug/unplug your phone or computer or for any other reason.
4. Borrowing calculators, erasers, etc. from other students during tests/quizzes (you may borrow a calculator, for a limited time, from the Library).
5. Continued, willful, open and persistent defiance of the authority of the instructor.
6. Inordinate demands for time and attention.
7. Talking, eating, and drinking.
8. Pandiculating or sleeping.

## Assignments (projects, test, quizzes)

You may collaborate with your classmates on projects but not on test or quizzes. However, you must be able to explain your work, if asked. No time extension will be given, for any reason. The Instructor does not keep returned work for late pick-up. It is left in the room.

## Presentation Standards:

Written work is scanned. Therefore, it is imperative that you follow the standards below, to the



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letter. If the scanner can not read your name, your work will be rejected. Rejected work will be penalized. A sample Heading is posted in my website.

1. Download the sample, adjust your printer as needed, to print the header.
2. Type or print (all) the header information in upper case letters, size Arial 12 or equivalent.
3. College Level quality of work is expected; messy work (Homework, Tests, Quizzes, final, etc.) will not be graded.
4. Work should be in top-down fashion; the answer should be the last statement and should be boxed.
5. Allow one-inch margins on both sides and at the bottom.
6. Use new 20 lb printer-paper and write/type on one side only.
7. If the answer is text only, your paper must be word-processed.
8. If you word-process your paper/report and you have equations in your text, use an equation editor. Do not use non-standard notation for exponents (\*, ^, /). It is better to write equations clearly by hand, if you do not have an equation editor.
9. Use 2H pencil only; No pen.
10. Use an eraser to make corrections, no crossing-out.
11. Use an appropriate grid for graphs, label the axes appropriately including key-values and units (per example shown in class)
12. Start each problem/question at the top of a new page.
13. Round answers to two decimal places. If the number is less than one then place a zero before the period (ex. 0.34)
14. Solution methods other than those presented in class are not acceptable.
15. Staple all sheets together in ascending order of the assigned problems and do not fold.
16. Work that does not conform to these standards will receive partial or no credit, even if the answer(s) is correct.

## Communications: [krestasgeorge@fhda.edu](mailto:krestasgeorge@fhda.edu)

1. I do not have a secretary. Therefore, it may take up to 48 hrs for a response.
2. Do not call or email me asking for my notes or if I said anything "important!" The answer to both is "NO".
3. Test solutions will be presented in class..
4. I welcome suggestions about issues relating to the course.
5. For praise, derision or grumble see "Where to send Fan/Hate mail."

## *Contesting Grades*



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*DO NOT CONFUSE EFFORT WITH RESULTS.* Student earned points are NOT subject to negotiation. Additional credit will only be given in those cases where there is evidence of oversight. Explaining what you did wrong does not constitute grounds for additional credit.

1. Submit a word processed explanation (oral or emailed explanations will not be considered) with the appropriate Heading.
2. Staple the explanation in the front of the graded item in question and submit it no later than the class session immediately following the one where the work was returned.
3. Contesting requests past the one session deadline will not be accepted.
4. Presenting other student's work, seemingly the same as yours, for which the other student received more credit than you did, will result in lowering the other student's score to match yours.
5. No contests will be accepted at the last day of classes.

## Assessment Method

Several unannounced quizzes given at any time during the class period, maximum three tests, and a comprehensive final given at the time and day assigned by the College (see schedule of finals at: <http://deanza.fhda.edu>).

1. No make-ups will be given for any reason.
2. The lowest (if more than two) test, quiz, homework will be dropped.
3. The final is comprehensive.
4. If you can not take the Final on the scheduled time (see Calendar or the De Anza website Finals Schedule), do not take the class.
5. The examinations may contain T/F, M/C, and fill-in equations in addition or in lieu of solving problems. Therefore, have a SCANTRON 2052 with you on test days.
6. All examinations are closed book and notes, except for an 8.5" x 11" sheet (both sides).
7. If you leave the classroom during a test/quiz/Final you will receive a zero (0) for it.
8. On test days, you may be assigned a different seat.
9. I keep finals for 21 days. Please make an appointment if you wish to review it.
10. **If you miss the final you will get a "0" grade for it.**

## Scale

Homework ..... = **10 points**  
Tests ..... = **25 points**



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Quizzes .....= **30 points**  
Final Exam .....= **35 points**  
Bonus..... = **05 points**

90 points < A-, A, A+ < 100 points  
80 points < B-, B, B+ < 89 points  
70 points < C-, C, C+ < 79 points  
50 points < D-, D, D+ < 69 points  
0 points < F < 49 points

- *Bonus points are totally on the discretion of the instructor.*
- *The instructor reserves the right to make minor adjustments to the scale. The instructor cannot guarantee a certain grade to anyone.*
- *Keep all your graded material until the end of the class in case the roster file is lost.*

## Materials

Five sheets of SCANTRON in mint condition, calculator (no phone), pencil #2, eraser, ruler, and a batch of #20 lb white paper (printer paper).

## Sanctions

Sanctions may vary from an oral reprimand to a ten-point deduction or being asked to change seats, leave the classroom, see the PSME Dean before being allowed to re-enter the classroom, dropped, and/or being reported to the Dean of Students for farther disciplinary action. For example,

Absence: -2 pts.  
Phones in sight: -5,pts  
Ringing Phones: -5 pts  
Earphones: -5 pts  
Disruption: -10 pts  
Rejected work: -05 pts

## Student Services

Click on the link <http://www.deanza.edu/student-services/> for information about financial aid, childcare, counseling, academic support, disability support, student activities and other services provided by the college.

*Note: Those needing accommodations based on the impact of a disability must contact the Disabled Students Services directly.*



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## Office Hours

Office hour is intended for students to have a private discussion about their grades or for clarification on a *specific question* about the homework, or the lecture *after* the student has attempted to solve the problem himself and has visited the Tutoring Center for assistance. Office hours are **not intended** as a private tutorial session or for working out assigned or not assigned homework problems.

## Restrictions

Due to the critical importance of the *Copyright* © of materials used and/or presented in class, you may not tape, photograph, or electronically record all or part of the lecture, tests, or quizzes. Violators will be sanctioned and /or may be dropped. In addition, they will be held responsible for any copyright infringement caused by their failure to comply with this restriction.

## Roster

The roster will be posted at my website every two weeks. If there is a discrepancy in your score, then you should follow the same process outlined in the "CONTESTING YOUR GRADES." No error will be recognized after one week from the posting of the latest roster or after the last day of classes.

## Tutoring

The Student Success Center (S46) offers group and individual tutoring free of charge. If you need assistance, do not wait, sign up immediately.

## Where to send Fan / Hate Mail:

**See appropriate tab in my website:** [profgvk.weebly.com](http://profgvk.weebly.com)



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### CALENDAR :

Week	Chapter Section	Homework	Homework Due Monday 11:55 pm
1	Course Intro. 7.1 7.3 7.5	8,48,68 8,24,50 40,60,82	
2	8.1 8.2 8.3,	30,40,92 20,36,62 38,44,74	
3	8.4 8.5	44,52,68 16,38,62	
4	<b>Test #1</b> 9.1	32,82,96	
5	9.2 9.3 9.4	64,92,96 56,68,118 22,58,79	
6	9.5 <b>Test#2</b>	40,60,92	
7	11.1 11.2	20,50, 62,78 38,54,60,64	
8	11.3 11.4	36,54,58,62 26,40,50,62	
9	<b>Test#3</b> 10.6	22,28,52	
10	10.7 10.8 10.9	18,40, 106 60,66, 78 54,59,65	
11	Hyperbolic Functions		
12	<b>Review</b> <b>Final: see Finals Schedule at Deanza.edu</b>		

**Note<sup>1</sup>:** Although I only assign a few problems per week, I strongly recommend that you do at least ten problems from the end of each section.

**Note<sup>2</sup>:** Grading will be based on neatness and organization, as well as, on correctness

**Note<sup>3</sup>:** The Final will be given at the time and date defined by the College. See finals exam schedule at the De Anza website. Missing the Final will result in an "F" grade for the class.

**Note<sup>4</sup>:** The instructor reserves the right to revise the calendar as needed to cover the material.

