Math 43: Precalculus III – Fall 2016

Mon. - Fri. 9:30-10:20 in E-34

Instructor: Cheryl Jaeger Balm Office Hours: Mon, Tues, Thur, Fri 10:30-11:20

Office: S-76D Email: balmcheryl@fhda.edu

Website: http://www.deanza.fhda.edu/faculty/balmcheryl/math43_fall16.html

<u>Class Website:</u> Any changes to the class syllabus, calendar, homework or other materials will be posted on the class web site. Bookmark it and check it often!

Textbook and Required Materials:

- Larson: <u>Precalculus with Limits</u>; 3rd Ed.: We will not be using WebAssign in this class. It is recommended but not required that you bring your book to each class meeting.
- Graphing calculator: Recommended calculators are TI-83, TI-83⁺, TI-84 and TI-84⁺. If you have another graphing calculator, please have it approved by the instructor before the first quiz. Calculators that do symbolic logic (e.g. TI-89, TI-92, HP-49, etc.) will not be permitted during quizzes and exams. Your phone is not your calculator. If you have your phone out during a quiz or test, you will receive a zero on that assessment, no exceptions.

Student Learning Outcome

- 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.

Attendance: Regular, punctual attendance at all class meetings is expected of each student. Students absent during the first week of class will be dropped unless they contact the instructor. If you miss a class, you are responsible for covering the material before you return to class. You should read the corresponding section(s) of the textbook and get notes from a classmate. You are also responsible for knowing about any changes to the syllabus and/or schedule that may be announced in class. Each tardy of more than 5 minutes will count as half an absence, as will leaving class more than 5 minutes early without instructor approval. A student may be dropped from the class if absent the equivalent of 10 times, no matter what the reason(s).

<u>Homework:</u> Homework will be assigned every day. Do not fall behind! Complete all homework assignments and ask questions.

<u>Quizzes:</u> There will be 9 in-class quizzes that will usually take place on Fridays. Quiz dates are listed on the calendar. Books and/or notes will not be permitted during quizzes unless otherwise announced. Your lowest quiz score will be dropped, so there will be 8 total quiz grades (20 points each). **There are no make-up quizzes.**

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Projects and presentations: Two mini groups presentations will be assigned during the quarter. These will be informal and last no longer than 10 minutes. Each presentation will be worth 10 points. Additionally, two projects will be assigned during the quarter, each worth 35 points.

<u>Exams</u>: Three exams will be given worth 100 points each. Exam dates are listed on the calendar. Each of the midterm exams will focus the material covered since the previous test. A missed exam will count as 0 points; make-up exams will not be given for any reason.

<u>Final Exam:</u> There will be a 2-hour final exam worth 200 points on **Tues.**, **Dec. 13**, 9:15 - 11:15. The exam is comprehensive.

Grades will be assigned as follows:

Assignments	Points	Total points	Percent	Grade
Exams (3 @ 100 points)	300	675-750	≥ 90	A
Final exam	200	600-674	≥ 80	В
Quizzes (8 @ 20 points)	160	525-599	≥ 70	\mathbf{C}
Projects and presentations	90	450-524	≥ 60	D

How to get help: Students may receive tutorial assistance from the instructor during office hours. Please come by for help or to talk about your grade. That is what I am there for! Group and individual tutors are also available in S-43. Get help before you are drowinng!

Other:

- If you have any questions regarding your grade on any assignment, you must discuss the matter with me before leaving the room with the graded material. Once the graded material has left the classroom, no grading changes will be made.
- Cell phones and other devices should be turned off or set to **silent** during class. Your phone is not your calculator. If I see it or hear it, it may be confiscated until the end of class.
- Disruptive talking and other interruptions during class will not be tolerated.

Academic Integrity: Academic dishonesty will not be tolerated. If a student is found cheating and/or copying on any assignment, test or quiz or violating any other code of academic integrity, he or she will receive a 0 on the assignment and may receive failing grade for the course and/or be reported to the Dean of the PSME Division. Those caught twice will be expelled from the class with an F.

<u>Disability Statement:</u> De Anza College makes reasonable accommodations for people with documented disabilities. Please notify Disability Support Programs and Services (DSPS) if you have any physical, psychological or other disabilities, vision, hearing impairments or ADD/ADHD. DSPS is located in ATC-209. Phone number: 408-864-8407. Website: https://www.deanza.edu/dsps/

Important Dates for Winter Quarter 2016:

- Sun., Oct. 9: Last day to drop for a full refund or credit and with no record of grade.
- Fri., Oct. 14: Last day to request pass/no pass grade.
- Fri., Nov. 11: Holiday No Class
- Fri., Nov. 18: Last day to drop with a "W."
- Nov. 24-27: Holiday No Class
- Fri., Dec. 9: Last day of class.
- Tues., Dec. 13: Final Exam 9:15am-11:15am.

Class schedule (subject to change):

	Mon	Tues	Wed	Thur	Fri
Wk 1	(Start 10.6)	Mini presen-	10.7 Pre-	10.7 Pre-	Quiz 1 - 10.6,
9/26 -		tations as-	sentations	sentations	10.7 ; (start 10.8)
9/30		signed			
Wk 2	(Start 10.9)		(Start hyper-		Quiz 2 - 10.8,10.9;
10/3 -			bolic func-		Assign Project 1;
10/7			tions)		Drop deadline
					Sun. 10/9
Wk 3		(Start 7.1)	(Start 7.5)	Quiz 3 -	Project 1 due; Re-
10/10-				Hyperb.	view for exam; Pass
10/14				fns.	/ No Pass dead-
					line
Wk 4	EXAM 1 -	(Start 7.2)	(Start 7.3)		Quiz 4 - 7.3 ; (start
10/17-	10.6-10.9,				8.1)
10/21	hyperb.				
	fns., 7.5		(2		
Wk 5			(Start 8.2)		Quiz 5 - 8.1
10/24-					
10/28	(0, 1111)	11 0 D	11 0 D	(0++0-4)	0 ' 0 0 0 11 1
Wk 6	(Start 11.1);	11.2 Pre-	11.2 Pre-	(Start 8.4)	Quiz 6 - 8.2, 11.1,
10/31-	mini presen-	sentations	sentations		11.2
11/4	tations as-				
Wk 7	signed (Start 11.3)	Quiz 7 - 8.4	Review for	EXAM 2 -	NO CLASS
11/7 -	(Start 11.3)	Quiz 1 - 6.4		7.3, 8.1, 8.2,	NO CLASS
11/11			exam	8.4, 11.1-	
11/11				11.3	
Wk 8	Assign		(Start 6.4)	(Start	Quiz 8 - 6.4, 11.4;
11/14-	Project		(50010 0.1)	11.4(b))	(start 9.1); With-
11/18	2; (start				drawal deadline
11/10	11.4(a))				drawar deddiiie
Wk 9	(Start 9.2)		Project 2	NO CLASS	
11/21-			due; (start		
11/25			9.3)		
$\mathbf{W}\mathbf{k}$		(Start 9.4)	,	Quiz 9 -	Review for exam
10		,		9.1-9.3	
11/28-					
12/2					
Wk	EXAM 3 -	(Start 9.5)		Review day	Review day
11	9.1-9.4, 11.4				
12/5 -					
12/9					
Finals		Final Exam			
12/12-		9:15-11:15			
12/16					

Suggested Homework (subject to change)

EXAM 1 Material:

Ch 10: Parametric and Polar Equations

10.6: 3, 5, 11, 17, 23-29 odd, 47-57 odd, 65, 67, 87-93 (all), 95, 103-105 (all)

10.7: 71-79 odd, 117, 119, 121, 125, 127

10.8: 3-12 (all), 27, 28, 35, 36, 38, 41, 42, 50, 51, 55, 59, 61, 62

Hyperbolic functions: See handout

Ch 7: Linear Inequalities

7.5: 33, 37, 39, 43, 53, 55, 61-69 odd, 73, 75, 76

EXAM 2 Material:

Ch 7: Systems of Equations

7.3: 1, 3, 4, 5, 17, 25, 27, 29, 43, 45, 49, 51, 57, 59, 65

Ch 8: Matrices

8.1: 1-4, 9, 11, 13, 19, 21, 25, 27, 41, 65, 69, 71, 73, 85, 87, 89, 95, 97

8.2: 4, 11, 15, 17, 21, 27, 29, 31, 35, 37, 47-55 odd, 65, 67, 69, 77, 79

Ch 11 & 8: 3-dimensional Vectors

11.1: 2, 3, 6, 9, 11, 29, 31, 37, 41, 43, 47, 49, 53, 55, 59

11.2: 4, 5, 9, 11, 15, 19-25 odd, 29, 35, 39-51 odd, 63, 69

8.4: 1, 7, 9, 11, 63, 65, 69–85 odd, 97

For #7-11, also sketch to corresponding parallelogram

11.3: 5, 9, 13, 17, 21, 23, 29, 31, 35, 39, 41, 43, 49, 51

In #17-23, use the dot product to show orthogonality

EXAM 3 Material:

Ch 11: Lines and planes

11.4(a): 1, 4, 5-13 odd, 21, 23, 25, 37, 39

6.4: 59-65 odd 11.4(b): 59-65 odd

Ch 9: Sequences and series; Induction

9.1: 7-15 odd, 23, 25, 33-36 (all), 59, 61, 67-73 odd, 79, 81, 83, 89, 91, 105

9.2: 5, 7, 9, 13, 15, 17, 21, 23, 25, 31, 33, 39, 43, 45, 51-57 odd, 65-68 (all), 77, 79, 83, 87, 88, 91

9.3: 5, 7, 9, 13, 15, 23, 25, 29, 31, 39, 41, 43, 47-50 (all), 57-63 odd, 69-79 odd, 88, 91, 93

9.4: 5-15 odd, 19, 23, 31, 35, 37, 39,

The rest of the quarter:

Ch 9: Binomial Theorem

9.5: 5-17 odd, 21, 23, 27, 31, 33, 53-59 odd, 89, 90