# Math 1A-01Z Calculus I - Differentiation

Winter

2023

M - F 8:30 am - 9:20 am (Note that Friday is optional) Online

**OFFICE HOURS:** 9:30 am - 10:00 am online Monday through Thursday or by appointment.

**INSTRUCTOR:** Victor Legge

leggevictor@fhda.edu. Please just use this email for all contact. **CONTACT INFO:** 

A passing grade in Math 43 or equivalent or placement in this class via test. PREREQUISITE:

Stewart, Calculus Early Transcendentals 9th edition. You can use the 8th edition but TEXTBOOK:

you will have to sync up the homework questions with someone who has the 9<sup>th</sup>

edition.

You are required to have a basic scientific calculator, graph paper (regular and **MATERIALS:** 

> polar), a 3 ring binder, binder paper, pencils and a ruler for this class. A graphing calculator is highly recommended. Here is a link to a TI 83 online graphing calculator: https://www.videomathteacher.com/free-resources/free-downloadable-

math-calculators/download-free-virtual-ti-calculator-online/

ATTENDANCE: Class sessions begin promptly. Attendance will be taken for each session.

Attendance is mandatory and you are expected to be on time and to attend all sessions unless you are ill or have a real emergency. YOU ARE ALLOWED TO HAVE 2 UNEXCUSED SESSION ABSENCES AFTER WHICH YOU MAY BE

DROPPED FROM THE CLASS. PLEASE NOTE THAT 3 UNEXCUSED

TARDIES EQUALS ONE UNEXCUSED ABSENCE. Whether you are dropped or not after exceeding 2 unexcused absences depends on your grade. Students with poor attendance and low grades will be dropped from the class very quickly. If you think your absence or tardy should be excused please tell me, otherwise I shall

assume that it is unexcused.

If you have 16 total absences (excused or unexcused) and it is before the W drop

deadline you will automatically be dropped from the class.

The last day I add will be Tuesday October 3<sup>rd</sup>. I will start adding the second day. I ADDING:

> will keep a waitlist for every day. Students will be moved to the bottom of the waitlist if they are late, do not attend class for any reason (this includes day one) or

miss assignments

DROPPING: A student is responsible for dropping him/herself. Please do not assume that I will

> drop you from the class just because you have stopped attending. By not taking responsibility for dropping or withdrawing yourself, your "no grade" may become a W or an F or your W may become an F. If you have not been attending class for a while and still plan to attend please inform me by email or phone. Otherwise you may be dropped from the class. Students who have not dropped and who do not show up for the final exam will receive an F in the course unless there are extreme

extenuating circumstances.

TECHNOLOGY:

Please have your video on for the entire class session. You will gain one extra credit point for having your video on the entire class session. Please do not use cell phones in class except to take pictures of work to be turned in. All lectures will be recorded so you do not need to take screenshots.

All work will be turned into Canvas. It is very important that your work is readable otherwise you will lose points. Only PDF files are acceptable.

HOMEWORKHomework will be worth 20 points. It will usually just be graded for completeness. In other words I will not be grading the questions just whether you turned in a reasonable amount of work. Occasionally, I will grade a question from the homework. This will be worth 20 points. I will not tell you when a homework will have a question graded. It is fine to collaborate on the homework. I do not accept late homework.

CLASSWORK:

During class sessions there will sometimes be classwork. It is fine to ask me questions on the classwork. It is fine to collaborate on the classwork. You will normally have 4 days to complete the classwork. I do not accept late classwork. Classwork is worth 20 points. All classwork questions will be graded.

**MIDTERMS**:

There will be three 1 hour midterms. Each midterm is worth a maximum of 200 points. Please note that a photo ID will be required for the first midterm only. It is very important that you take the midterms. Missing a midterm for any reason will mean that you will score the same on the midterm as you do on the final as a percentage. If you do better on the final than you do on any of the midterms then the percent score for the final will replace the percent score for your lowest midterm.

RETAKES AND MAKE-UPS: There are no retakes or make-ups of midterms of quizzes, under ANY circumstances, EVER!! If you are ill and miss the final then you must show documentation that you were ill and then you will be issued with an incomplete for the class. The final then has to be made up within one year. Besides illness the only acceptable reason for missing the final is a REAL emergency. By a real emergency I mean an unforeseen event that could not have been avoided. Examples include a funeral being scheduled at the same time as the final. Please note that difficult life circumstances do not constitute an emergency.

**REVIEWS:** 

If time allows there will be a review for midterms. This will involve test taking tips as well as a mathematics review. Just because a question is being reviewed does not mean it will be on the test. It is possible but highly unlikely that all questions reviewed on the review will not be on the test.

PARTICIPATION POINTS: Participation in class is a very helpful aid in learning. I give extra credit points for participation. This will include, but is not limited to, keeping your camera on in class, asking questions in class or during office hours and being on time to class.

#### FINAL EXAM:

There will be a comprehensive final given on the last day of instruction. You cannot take the final early under ANY circumstances. Do not ask. The final is worth a maximum of 400 points. YOU MUST ATTEND THE FINAL. If you know that you cannot attend the final due to a prior commitment then you should not take this class. Missing the final without a valid reason (see the last section – Retakes and Make-ups) will result in an F in the class.

The final will be given on the last day of instruction Wednesday, December 13th, 7:00 am to 9:00 am. It is imperative that you be on time for the finals.

#### **COURSE GRADE:**

There will be three midterms, 11 homeworks, several classworks and a comprehensive Final Exam.

Points are assigned as follows:

Best Classworks	300 pts approx
Best 8 homeworks	160 pts
Graded Homework Questions	100 pts approx
Three Midterms	600 pts
Final Exam	400 pts
Total points – maximum	1560 pts approx

Letter grades are assigned as follows:

6	
97.0% and above	A+
90.0% to 96.9%	A
88.0% to 89.9%	A-
86.0% to 87.9%	B+
82.0% to 85.9%	В
80.0% to 81.9%	B-
78.0% to 79.9%	C+
70.0% to 77.9%	C
68.0% to 69.9%	D+
55.0% to 67.9%	D
0% to 54.9%	F

#### ASKING FOR HELP DURING TESTS:

It is my policy not to give you help during a test of any kind. A test is designed to discover what you know without help. Giving one student individual help during a test would be unfair to other students. The only 2 valid questions to ask the instructor during a test is "This question seems unclear to me. Could you please check it?" and "This question seems to be impossible. Could you please check it?" Students for whom English is not their primary language should know that I will not help in any way on tests to explain what words, sentences or any piece of text means. Please note that all students can bring a non-electronic dictionary to a test. If a student has a question during a test my response will be either "I am sorry but I cannot help you," OR "the question is clear," OR in the case that there is something wrong with the test I will write on the board what needs to be changed on the test.

# **ACADEMIC DISHONESTY:**

Working with other students to learn material is a great way to study. However, working with others on a test is not allowed in any form. When grading midterms I will be looking closely for answers that are identical in two or more students' papers, especially if the answer is incorrect. When I find two identical wrong answers I may give both students zero on that question. If the same two students continue to exhibit identical incorrect answers in future midterms then I may report you to the De Anza authorities. Please be warned that "cheating" on a midterm or final can result in expulsion from the school.

DISABLED STUDENTS: Students who are disabled and qualify for special help by law should take advantage of what is entitled to them. Please see me or tell me EARLY in the class if you are one of these students so that I can do everything in my power to give you the assistance you deserve.

COURSE GRADES: Grades for the course can only be changed in the event of a clerical error. It is not legal for me to change the grade for any other reason.

If you require your grade quickly after the final please send me an email within 3 days of the final and I will give you your grade on the final within 5 days of the final. If you send me an email more than 3 days after the final I will get you your grade within 48 hours.

# **TEACHER** ABSENCE:

Please note that if and when I am absent the general policy is not to provide a substitute teacher to cover for the class unless the absence is over one day. In the event of this happening it is the student's responsibility to study the material that was scheduled for that day. It is also recommended that you study the material for next week's class as well, in advance. This is because when I return from the absence I will cover the material that was missed and the current material in one week. In other words I will be going quicker!!!

If I am absent for an extended period of time a substitute will be provided. Please check your email just before coming to class. If I am going to be absent an email will be sent to you.

# **CONTRACT:**

One purpose of this greensheet is to provide you with the guiding principles of the class and another is to make sure that you have answers to any questions that might arise. Please put this sheet in a safe place where you can easily refer to it. Make sure you read all of it before you ask me any questions about the course. It is also a contract between you, the student, and myself, the instructor of record. Make sure you understand its contents fully especially the parts that pertain to testing and the computation of your grade because so long as you remain enrolled in the course you are, as am I, implicitly agreeing to abide by these terms.

# SCHEDULE FOR MATH 1A01Z

# KEY:

9.

10.

- \* INDICATES THAT A MIDTERM OR QUIZ IS SCHEDULED FOR THIS DAY.
- \*\* MEANS DROP OR WITHDRAW DEADLINES

For all homework do these questions 1, 14, 27, 40, 53, 66 ... Do not go above question 66.

DAY	CLASS	HOMEWORK	
Week 1 of class			
1.(9/25)	Green Sheet, 1.1	1.1	
2.	1.2		
3.	1.2, 1.3	1.2	
4.	1.3	1.3	
5.	1.4		
Week 2 of class			
6.(10/2)	1.4, 1.5	1.4	
7.	1.5	1.5	
8.	2.1 <b>Hwk 1 due: 1.1 – 1.3</b>		

2.1, 2.2

2.2

2.1

2.2

<sup>\*\*</sup>SATURDAY OCTOBER 8TH – LAST DAY TO ADD CLASSES

<sup>\*\*</sup>SUNDAY OCTOBER 8TH- LAST DAY TO DROP WITHOUT A W.

# Week 3 of class

11.(10/9) 2.3

12 2.3, 2.4 **2.3** 

13 2.4, 2.5 2.4 **Hwk 2 due: 1.4, 1.5, 2.1. 2.2** 

14 2.5 **2.5** 

15. 2.6

# Week 4 of class

16. (10/16) 2.6, 2.7 **2.6** 

17. 2.7 **2.7** 

18. 2.8 **Hwk 3 due: 2.3, 2.4, 2.5** 

19. 2.8, 3.1 **2.8** 

20. **MIDTERM 1** (Chapter 1, 2.1 – 2.5)

# Week 5 of class

**21**.(10/23) 3.1, 3.2 **3.1** 

22. 3.2 **3.2** 

23. 3.3 **Hwk 4 due: 2.6, 2.7, 2.8** 

24. 3.3, 3.4 **3.3** 

25. 3.4 **3.4** 

# Week 6 of class

26.(10/30) 3.5

3.5

27. 3.5, 3.6

28. 3.6

3.6

Hwk 5 due: 3.1 – 3.4

29. 3.7

30. 3.7, 3.8

**3.7** 

# Week 7 of class

31.(11/6) 3.8

32.\* 3.9

33. 3.9, 3.10

3.9

3.8

Hwk 6 due (3.5, 3.6, 3.7)

34. **MIDTERM II** (2.6 - 3.7)

35. Veteran's Day – No Class

## Week 8 of class

36.(11/13) 3.10

3.10

37. 3.11

38. 3.11, 4.1

3.11

Hwk 7 due (3.8, 3.9)

39. 4.1

4.1

40. 4.2

\*\*FRIDAY NOVEMBER 17TH - LAST DAY TO DROP CLASSES WITH A W

## Week 9 of class

41.(11/20) 4.2, 4.3

4.2

42. 4.3

4.3

43. 4.4

Hwk 8 due (3.10 – 4.1)

44. Thanksgiving – No Class

45. Thanks giving – No Class

## Week 10 of class

46.(11/27) 4.4, 4.5

4.4

47.\* 4.5

4.5

48. 4.6

Hwk 9 due (4.2 – 4.3)

49. 4.6, 4.7

4.6

50. **MIDTERM III (3.8 – 4.3)** 

## Week 11 of class

51.(12/4) 4.7

4.7

52. 4.8

53. 4.8, 4.9

4.8

Hwk 10 due (4.4 – 4.6)

54. 4.9, Review for Final

4.9

55. Review for Final

#### Week 12 of class

 $23..(12/13)^*$  Final (7:00 am - 9:00 am) (Covers everything in course but with more eimphasis on 4.4-4.9) Hwk 11 due (4.7 - 4.9)

# **Student Learning Outcome(s):**

- Analyze and synthesize the concepts of limits, continuity, and differentiation from a graphical, numerical, analytical and verbal approach, using correct notation and mathematical precision.
- Evaluate the behavior of graphs in the context of limits, continuity and differentiability.
- Recognize, diagnose, and decide on the appropriate method for solving applied real world problems in optimization, related rates and numerical approximation.

# **Office Hours:**

M,T,W,TH 09:30 AM 10:00 AM Zoom