MATH 1C: CALCULUS

Spring 2021

| Instructor: | John Jimenez | Time: | M - F 9:30-10:20 |
| Email: | jimenezjohn@fhda.edu | Office Hour | T Th 1:30 - 3:10 p |

Required Text and Recommended Materials:

- Textbook: Calculus: Early Transcendentals with Hyperbolic Functions, 8th Edition, J. Stewart.

- Calculator: Although not necessary for most of this course, it can sometimes be helpful to have access to some type of graphing calculator. This can be a physical graphing calculator or some kind of free online graphing tool such as https://www.desmos.com/ or https://www.wolframalpha.com/.

- Access to https://deanza.instructure.com/. Canvas is where all of the course information will be available. Information regarding grades, lectures, resources, etc.

Goals for Students in the Course:

- To build a solid foundation for future calculus courses.

- To build confidence in their academic abilities in the math class and beyond.

- Be able to collaborate and discuss mathematics with classmates.

- To gain intuition behind concepts in the course.

Grading:

3 Midterm Exams	Quizzes	Project	Discussions	Final
40 %	35 %	5 %	5%	15 %

Grading scale	
≥ 100% A+	78-79.9% C+
93-99.9% A	70-77.9% C
90-92.9% A-	68-69.9 % D+
88-89.9 % B+	63-67.9% D
83-87.9% B	60-62.9% D-
80-82.9% B-	≤ 59.9 F

Exams 40 % : There are 3 midterm exams. The lowest midterm exam score will be dropped.

Quizzes 35 % :

- Quizzes will be composed of two parts, a submission of homework which is assigned after each class, and a collection of problems that you will answer which depend on the homework.

- There will be quizzes assigned regularly. Typically, these quizzes will be weekly.

- The quizzes will be graded on neatness, completeness, correctness, and effort.

Projects 5 % : There will be one project to enhance your understanding of topics studied in the course.

Discussions 5 % : Each week there will be a discussion board in which you can interact with your classmates about the course content. Here is where we will try to build a sense of community and interact with others over the material and serve as a place for participation and collaboration.

Final 15 % : The final for this course will be a two-hour cumulative exam. The final exam time for this class is Wednesday 6/23 from 11:30 AM to 1:30 PM.
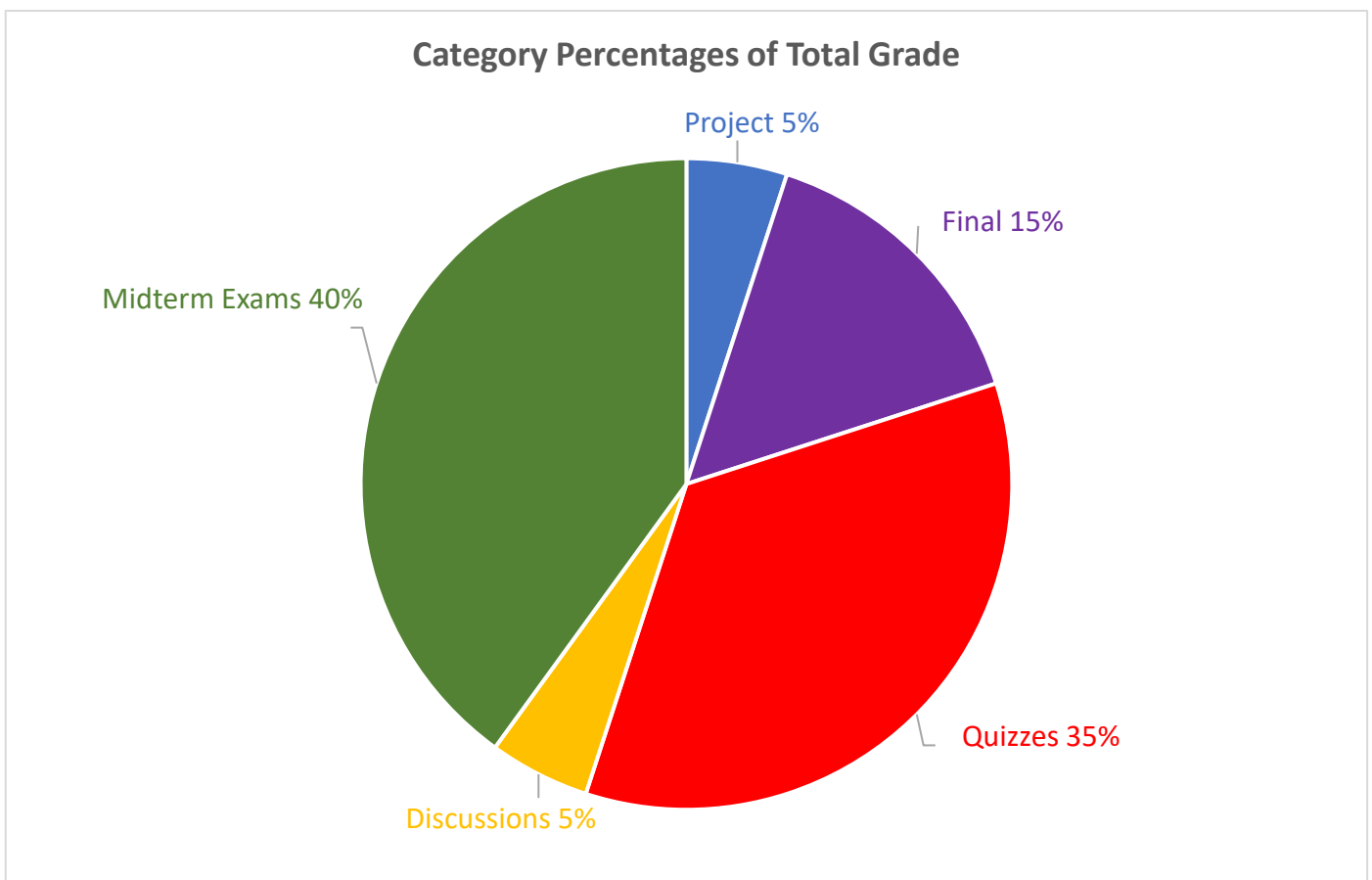

Figure 1: Grade breakdown for the course as a percentage.

Late Work: No late work will be accepted. Due dates will be clearly given on the assignments in Canvas. There will also not be any make up work.

Attendance: This class will be synchronously held via Zoom so attending means being present for the courses allotted time during the zoom sessions. As is the case with any class, being present is crucial and necessary for doing well in the course. Note that a student may be dropped from the course if participation is low.

You may be dropped from the course if:

- You miss 2 homework sets and or quizzes in a row.

- You do not interact with Canvas for a week.

- You miss 2 full weeks of synchronous meetings without contacting me prior to missing those

meetings.

Note that if for any reason you feel like you may need to drop the course, it is your responsibility

to do so.

Academic Integrity: If it is suspected that academic dishonesty is taking place on an assignment, the college will be notified and will result in a failing grade on the assignment or a failing grade in the class. For further information on academic integrity please see https://www.deanza.edu/policies/academic_integrity.html.

How to Succeed in this Course:

- The Student Success Center tutors and workshops area a great place to start! Watch the SSC Welcome Video to learn more.

  Tutoring: Go to http://deanza.edu/studentsuccess and click to join a Zoom tutoring room during open hours.

  Workshops: Attend a Skills Workshop, a content-specific math/science workshop, an Accounting chapter review workshop, or a Listening and Speaking workshop.

  Resources: Join the SSC Resources Canvas site to see content and learning skills links.

  After-hours or weekend tutoring: See the Online Tutoring page for information about NetTutor (via Canvas) or Smarthinking (via MyPortal).

  It is known that students who participate in tutoring, group study, or workshops for three or more hours a week succeed at much higher rates than those who do not. The students who most need the help may reluctant, but if you take the first step in seeking resources you will be glad you did.

- I encourage students to make use of office hours! This is another great place to get help on material related to the course.

- The discussion boards will be a great place to collaborate with classmates regarding the course content.

Disability Statement: If you have a disability related need for academic accommodations or services in this course, you will need to provide me with a Test Accommodation Verification Form (TAV form) from Disability Support Services (DSS) or the Educational Diagnostic Center (EDC). Students are expected to give a two week notice if they are in need of accommodations. For those students with disabilities, you can obtain a TAV form from their DSS counselor (408 864-8753 DSS main number) or EDC advisor (408 864-8839 EDC main number). The application process can be found here: https://www.deanza.edu/dsps/ dss/applynow.html

Course Description: Fundamentals of differential calculus. (5 units)

Tentative Course Schedule:

Week	Section
1	10.1 Curves Defined by Parametric Equations 10.2 Calculus with Parametric Curves 10.3 Polar Coordinates
2	10.4 Areas and Lengths in Polar Coordinates 11.1 Sequences
3	11.2 Series **Exam 1** 11.3 The Integral Test and Estimates of Sums
4	11.4 The Comparison Test 11.5 Alternating Series 11.6 Absolute Convergence, Ratio and Root Tests 11.7 Strategies for Testing Series 11.8 Power Series
5	11.8 Power Series 11.9 Representations of Functions as Power Series **Project 1 assigned** 11.10 Taylor and Maclaurin Series
6	11.11 Applications of Taylor Polynomials **Exam 2** 12.1 Three-Dimensional Coordinate Systems
7	12.1 Three-Dimensional Coordinate Systems 12.2 Vectors 12.3 The Dot Product **Project 1 due** 8.1 Arc Length
8	12.4 The Cross Product 12.5 Equations of Lines and Planes
9	12.6 Cylinders and Quadric Surfaces **Exam 2** 13.1 Vector Functions and Space Curves
10	13.2 Derivatives and Integrals of Vector Functions 13.3 Arc Length and Curvature
11	13.3 Arc Length and Curvature 13.4 Motion in Space: Velocity and Acceleration
12	Final Exam is on Tuesday 6/22 from 9:15 AM to 11:15 AM

Important Dates:

Date	
04/05	First day of spring quarter
04/17	Last day to add classes
05/ 28	Last day to drop classes with a W
05/29-05/31	Memorial Day Weekend (no class)
06/21-06/25	Finals Week. Final Exam Time for this Class: Tuesday 6/22 from 9:15 AM to 11:15 AM

For a more comprehensive list of important dates see http://www.deanza.edu/calendar/.

Student Learning Outcome(s):

*Graphically, analytically, numerically and verbally analyze infinite sequences and series from the perspective of convergence, using correct notation and mathematical precision.
*Apply infinite sequences and series in approximating functions.
*Synthesize and apply vectors, polar coordinate system and parametric representations in solving problems in analytic geometry, including motion in space.