

Math 1B: Calculus
Winter 2024

Instructor: John Jimenez	Class (In Person): M & W 11:00-1:15p MLC270
Email: jimenezjohn@fhda.edu	Class (via Zoom): T & Th 11:00-1:15p
	Office hours (via Zoom): TBD

Note that this course is a part of the Math Performance Success Program.

Program Mission

The Math Performance Success (MPS) program established at De Anza Community College in 1999, aims to help all underrepresented students meet their goals by improving student success in math through innovative and collaborative approaches including extended lecture time, in-class tutoring, and embedded counseling services.

Program Philosophy

The MPS program team members are dedicated to the philosophy that any willing student with the proper support and services can succeed in mathematics. Instructors, counselors, and tutors collaborate to help students complete their mathematics requirements. **The MPS program is designed for students who have had previous difficulty with Math.**

Structure

How does an MPS Math Classroom look like?

Students in the MPS program attend math class for two hours a day, approximately 10 hours a week, double the class time compared to a stand-alone math course. This extended instructional time, provides ample time for lecture, class activities, mindfulness, and group work. Tutors are available during the second part of the class to assist students who have questions about the material. Counselors also use the second hour of this class to check-in on students and make sure they are on track in succeeding in the course.

Important contact information:

Director, STEM Success Program Yvette Campbell, PHD campbellyvette@fhda.edu	MPS Counselor/Coordinator Luis Carrillo carrilloluisalberto@fhda.edu
Program Coordinator Deepa Yuvaraj yuvarajdeepa@fhda.edu	Tutors TBA

If you have any questions regarding the program, you can contact myself or anyone listed above. Preferably the counselor.

Required Text and Recommended Materials:

- Textbook: Our (free) textbook will be Calculus Vol 1 from Openstax: <https://openstax.org/details/books/calculus-volume-2>. Note that this book is available free in the online and PDF format. If you prefer a physical copy, that would be paid out of pocket and is available directly from the website or you can use the PDF file to print at a local printing facility (staples, office dept, a local printing shop).
- Calculator: Although not necessary for most of this course, it can sometimes be helpful to have access to some type of basic calculator. This can be a physical graphing calculator or a free online graphing tool such as <https://www.desmos.com/> or <https://www.wolframalpha.com/>. Note that graphing calculators are not allowed on exams. TI30's or equivalent can be used on exams.
- Access to <https://deanza.instructure.com/>. Canvas is where all 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 math 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:

Midterm Exams	Homework	Project	Final
45 %	35 %	5%	15 %

Grading scale	
90-99.9% A	70-77.9% C
88-89.9 % B+	68-69.9 % D+
80-87.9% B	60-67.9% D
78-79.9% C+	≤ 59.9 F

All assignments except for exams will be online through MyOpenMath which is a free online course management and assessment system for mathematics. You will automatically be enrolled and have access to MyOpenMath through Canvas so no action is required by students.

Exams 45 %: Three exams will be given throughout the quarter. See the schedule at the end of the syllabus for the dates of the exams. The lowest exam score will be dropped.

Homework 35 %: Homework will be assigned at the beginning of each lecture week and will be due one week after it is assigned.

Project 5 %: There will be one project to enrich your understanding of topics studied in the course and beyond.

Final 15 %: The final for this course will be a two-hour cumulative exam.

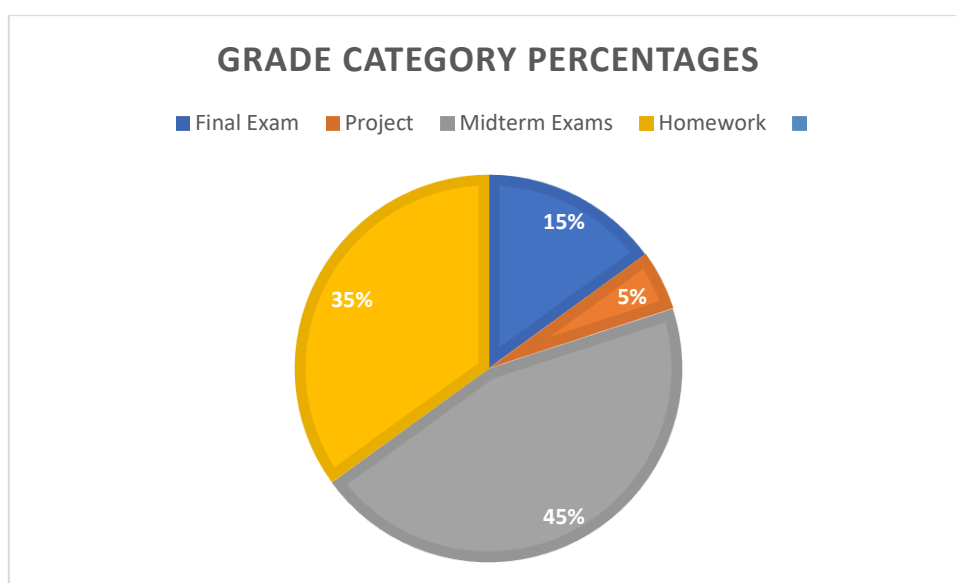


Figure 1: Grade categories for the course as a percentage of total grade.

Assignment submission recommendation: All assignments will have due dates. If for some reason you cannot turn in an assignment, you can redeem a LatePass and turn it in as soon as possible without penalties. LatePasses are automatically activated if you choose to use one so you do not need to reach out to me for permission. You get 7 late passes for the quarter and each one extends the due date of one assignment by 48 hours per late pass. Note that you can use more than one late pass on an assignment.

Resources to Succeed in this Course:

- The MESA center located in S54 has drop-in tutoring that you should definitely make use of! <https://www.deanza.edu/mesa/>
- Another great place to find tutors is in Math, Science & Technology Resource Center located in S43. <https://deanza.edu/studentsuccess/mstrc/>
- After-hours or weekend tutoring. See the [Online Tutoring](#) page for information about NetTutor (via Canvas) or Smarthinking (via MyPortal).
- Office hours! I encourage students to ask me any questions about the course content if they wish! You can reach me via [Zoom](#) in the times listed on the first page of the syllabus. This is another great place to get help on material related to the course.
- **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 be reluctant, but if you take the first step in seeking resources you will be glad you did.**

To protect students GPA, you may be dropped from the course if:

- You have multiple missing assignments.
- You do not interact with Canvas regularly to keep up with the course.
- Failure to communicate why you miss a class meeting or miss an assignment deadline.

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

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>

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.

Tentative Course Schedule:

Week	Section
1	Areas and Distances 1.1 The Definite Integral 1.2 The Fundamental Theorem of Calculus 1.3
2	Indefinite Integrals 1.4 The Substitution Rule 1.5 Areas Between Curves 2.1
3	Integration by Parts 3.1 Approximate Integrals 3.6
4	Exam 1 Volumes Disk/Washer Method 2.2 Volumes by Cylindrical Shells 2.3 Work 2.5 Project Assigned
5	Important Trigonometric Integrals 3.2 Trigonometric Substitutions 3.3
6	Exam 2 Improper Integrals 3.7 Arc Length 2.4
7	Area of a Surface of Revolution 2.4 Center of Mass 2.6
8	Probability Page 407 Integration of Rational Functions by Partial Fractions 3.4
9	Differential Equations 4.1 Separable Equations 4.3
10	Exam 3 Linear Equations 4.5 Logistic Growth Function 4.4
11	Solving the Logistic Growth Function 4.4 Direction Fields and Euler's Method 4.2
12	Final Exam Monday 6/21 from 11:30 AM to 1:30 PM

Important Dates:

Date	
Jan 15	Martin Luther King Jr. Holiday - no classes, offices closed
Jan 20	Last day to add classes
Jan 21	Last day to drop classes without a W
Feb 16-19	Presidents' Holiday - no classes, offices closed
March 1	Last day to drop classes with a W
March 25-29	Finals Week: Exam is on Monday 3/25 from 11:30 AM to 1:30 PM

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

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

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:

T,TH 09:00 AM 11:00 AM Zoom