Math 12, Applied Calculus  
Section 30575, Spring 2021, 4 units

Class Meetings
This class meets TR 12:30–2:35 pm synchronously using Zoom, from February 2 to May 20, and on May 27 from 11:50 am – 1:50 pm for the final exam. There is a link in the Canvas Calendar that will take you to each class session. You are expected to be present at each Zoom session and you can be dropped from the course for missing 10% of the classes. If you require some flexibility in attendance, please contact me. For more course information, please login to Canvas.

Use of video during our Zoom class is encouraged so that our sense of connection and community may be enhanced. It is OK if you need to turn off your camera or do not have one. I trust that you will be connected and participating even when we cannot see you. Please be sure to upload your photo or another image that represents you to your Zoom identity so that we can better connect when your camera is off.

Information about your Instructor

- Instructor: Betty Weiss  
- WVC Faculty webpage for Betty Weiss

Communication Plan

- You can reach me by email or by using the Canvas Inbox and I will respond within 24 hours, often sooner. Remember to let me know your name and what class you are in. 
- You can leave voicemail at (408) 741–2596. Include your full name and what class you are in.  
- You can also email me from within the xyzhomework system.  
- Student hours to meet with me one-on-one are MW 11 am-12 noon, and Tuesdays 3-4:30 pm. To visit, go to the Canvas Calendar and click on Student Hours to join the virtual session.  
- I will grade and give you feedback on any work submitted in Canvas within one week, often sooner. Assignments and quizzes in xyzhomework are graded immediately.  
- Please check Canvas at least once a week to see class announcements, or even better, set your Canvas notification preferences to receive class announcements either by email or text.

Why Take Math 12?
Applied calculus helps students understand change, in order to analyze the fluctuating costs, revenues, and profits of a business, to make decisions and predictions, as well as to track trends. It can help prepare you for future coursework or careers in business, finance, management, and economics.

Required Materials

- Purchase access to xyzhomework (this includes an electronic textbook and access to homework, quizzes and videos). Register for xyzhomework and use the Course ID 27169.  
- You will need a graphing calculator.

Graded Coursework

- Homework: You will be doing your homework online through xyzhomework. It will help with your questions and give you instant feedback on your graded answers. Homework can be turned in late but ONLY if you activate one of your 5 “late passes” BEFORE the due date; there is a 10%
penalty on late homework problems. Due dates will be shown in xyzhomework, but expect to have homework due every Tuesday and Thursday, starting Tuesday, February 9.

- **Quizzes**: You will be taking 8 quizzes online through xyzhomework, which will give you instant feedback on your graded answers. Quizzes will be timed (40 minutes), and you will get two tries for each quiz. Due dates will be shown in xyzhomework; expect to have a quiz each Sunday, except right after an exam. The lowest two quizzes will be dropped.

- **Discussion forums**: We will have some graded Canvas Discussions. Check in early each week (before Wednesday) to see what that week’s discussion is about and make an initial post. Check back later in the week (Wednesday to Sunday) to read other’s posts and reply.

- **Exams**: You will be downloading a total of 4 timed exams and completing them in Zoom during our scheduled class sessions. The exam dates are February 25, March 18, April 15, and May 6. You will be asked to scan or take a photo of your written work and submit it in Canvas, in pdf format as one file. Contact me in advance if you are not able to make one of these dates. If you miss one exam with a valid excuse, I will replace that exam score with your final exam score.

- **Final exam**: The cumulative final exam will be taken during the final exam Zoom session, Thursday, May 27, 11:50 am-1:50 pm. You will submit work in Canvas for the final exam.

**About due dates**: Due dates are very important, both to help you keep on track to learn the material and to be fair to all students. However, if you have extenuating circumstances let me know as soon as possible. We can work together to find solutions if you are not able to meet certain due dates.

**Grading**
Your grade will be a weighted average of homework (20%), quizzes (15%), discussion forums (10%), exams (40%), and the final exam (15%). The grade scale will be 90–100% A, 80–89% B, 70–79% C, 60–69% D, 0–59% F. Grades will be recorded in the Canvas gradebook; check there to track your progress.

**Accommodations for a Disability**
West Valley College is here to support you, and we want to make all learning experiences as accessible as possible. If you think you may run into academic barriers because of your disability (including permanent disabilities or chronic or temporary medical conditions), please let me know so we can privately discuss your options and create a plan that works for you. You may also want to register with the Disability and Educational Support Program (DESP). West Valley College’s DESP program is known for going the extra mile to support students, and they will work with you to establish reasonable accommodations for qualifying disabilities.

**Disability and Educational Support (DESP) Contact Information**
The [DESP office](#) is in the Student Services building. Their phone number is (408) 741-2010 (voice) or (408) 741-2658 (TTY).

**Student Help and Support**
West Valley College has many [Student Services](#) that are here to support your success and help you achieve your goals. College students often experience issues that may interfere with academic success such as stress, juggling responsibilities, life events, relationship concerns, sleep problems, or feelings of anxiety, hopelessness, or depression. All of us benefit from support during times of struggle – you are not alone. Helpful, effective resources are available for all students, and an important part of the college experience is learning how to ask for help. Getting help is the smart and courageous thing to do – for yourself, and for those who care about you.
You can learn more about the broad range of confidential, mental health services for students on the Health Services webpage, including tele-mental health, anonymous online screenings, trainings and resources such as TAOConnect and Kognito, and online/local information and resources.

- National Suicide Prevention Lifeline (800) 273-TALK (8255)
- National Crisis Text Line: text “COURAGE” to 741741

Learning Support/Tutoring

West Valley College’s Success Center and Math Resource Center offer FREE tutoring! Visit their websites for more information about tutoring support available to you online. To receive free tutoring through the Math Resource you must add the free 0-unit course LRSV 110M, CRN 31599 through the Portal. NetTutor in Canvas is also a free online tutoring service available 24/7.

Course Information

Catalog Description:

This course presents a study of the techniques of calculus with emphasis placed on the application of these concepts to business and management related problems as well as applications for social and life science majors. The applications of derivative and integrals of functions including polynomials, rational, exponential and logarithmic functions are studied. This course is not equivalent to Math 3A.

Prerequisites: Math 106 or 106R or qualifying score on Placement Test and proof of Algebra II.

Course Objectives:

- Find the derivatives of polynomial, rational, exponential, and logarithmic functions.
- Find the derivatives of functions involving constants, sums, differences, products, quotients, and the chain rule.
- Sketch the graph of functions using horizontal and vertical asymptotes, intercepts, and first and second derivatives to determine intervals where the function is increasing and decreasing, maximum and minimum values, intervals of concavity and points of inflection.
- Analyze the marginal cost, profit and revenue when given the appropriate function.
- Determine maxima and minima in optimization problems using the derivative.
- Use derivatives to find rates of change and tangent lines.
- Use calculus to analyze revenue, cost, and profit.
- Find definite and indefinite integrals by using the general integral formulas, integration by substitution, and other integration techniques.
- Use integration in business and economics applications.
- Solve optimization problems in one and two variables.

Student Learning Outcomes:

- Use the concepts of limits to compute a derivative and instantaneous rate of change.
- Use differentiation to solve application problems (like optimization).

West Valley College Policies

It's important for you to be aware of policies in the West Valley College Catalog. Below are a few key policies from the Rights and Responsibilities section you should know about.
• Attendance: Know that instructors may drop any student who does not attend the first class, who has missed any one class during the first three weeks of instruction, or who has missed more than 10% of the total class hours for the semester.
• Registration and Drops: Understand that it is your responsibility to make sure you are registered and/or dropped from any class by the deadlines listed in the schedule of classes.
• Withdrawal from a class: Make sure you know the last day to drop with a W (put that date in your calendar!). Even if you ask an instructor to drop you, it is still your responsibility, so double-check your enrollment status in the Portal. It’s important to know that instructors are required to issue a grade for any student still enrolled after the last day to drop.
• Academic Dishonesty: Understand what this means—it includes in-class cheating, out-of-class cheating, plagiarism, helping another student in cheating or plagiarism, or knowingly giving false information to college staff, faculty, administrators or other officials. You can receive a failing grade for the assignment if there is reasonable proof or documentation of academic dishonesty. Please seek help with your coursework from your instructor or a tutor instead of cheating.

Important Dates
• Last day to ADD this class: February 14
• Last day to DROP this class without a “W” and with a refund: February 14
• Last day to DROP this class with a “W:” April 30
• FINAL EXAM for this class: Thursday, May 27, in our Zoom classroom, 11:50 am–1:50 pm.

West Valley College Nondiscrimination Statement
The District, and each individual who represents the District, shall provide access to its services, classes and programs without regard to national origin, religion, age, sex or gender, race, color, medical condition, ancestry, sexual orientation, marital status, physical or mental disability, or because he/she is perceived to have one or more of the foregoing characteristics, or based on association with a person or group with one or more of these actual or perceived characteristics.