CALCULUS 1 Math 181, 11084 (4 credits) ONLINE   Prof. Battaly   **http://www.battaly.com/calc/**
Textbook: *OpenStax Calculus 1* E. Hermin and G. Strang. TI-83 or 84   Summer Session 2, 2023

Before class begins, study Ch 1 Functions and read 2.1 Preview of Calculus

Monday	Thursday	
DATE	**TEXT**	**TOPIC**
6/26	2.1,2.2	Preview, Limits
6/27	2.3	Finding Limits
6/28	2.4	Continuity
6/29	3.1,3.2, **Q1**	Derivative, as Function
6/30	3.3	Rules of Differentiation
7/3	3.4, **Q2**	Rates of Change
7/4		**NO CLASSES**
7/5	3.5	Deriv, Trig Functions
7/6		***** TEST 1 *****
7/7	3.6	Chain Rule
7/10	3.8, **Q3**	Implicit Differentiation
7/11	3.9	Deriv Exponential & Logarithmic
7/12	4.1	Related Rates
7/13	4.2, 4.3, **Q4**	Differential, Max/Min Values
*W 7/14	4.4	Mean Value Theorum (MVT)
7/17		***** TEST 2 *****
7/18	4.5	Derivatives & Graphs
7/19	4.6	Limits at Infinity & Asymptotes
7/20	4.7, **Q5**	Optimization
7/21	4.8, 4.10	l'Hospital's Rule, Antiderivatives
7/24	5.1	Area
7/25	5.2	Definite Integral
7/26	5.3	Fundamental Theorum of Calculus (FTC)
7/27	**In person**	***** FINAL EXAM ***** location: WCC Main TBA

FINAL GRADE = 2/3 Class Ave. + 1/3 Final Exam

Class Ave: Mean of Test1, Test2, and the Quiz Average.
Tests: <u>NO MAKEUPS</u>. There will be two tests. If a test is not taken, the grade for that test is 0.
        Tests are due at the end of the day (11:59 pm) on the scheduled date above.
        If a test is late, there will be 10 points deducted immediately, and then another 10 points for each continuing 12 hours past the due date/time. Test submitted after the due date/time, between 12:01 am and 12:00 noon that next day, loses 10 points. If the test is submitted at 12:01 pm to 12:00 midnight, it loses 20 points, etc.
        Tests will be available for 24 hours before the due date/time. Tests will be timed at 1.5 hours.
        Students will need to write answers on paper, convert to a digital format via photos or scans, and submit into the Brightspace portal. **Only hand written responses will be accepted for Part 2.**
        The topics covered on each test will include the topics covered since the last test.
Quizzes: <u>NO MAKEUPS</u>   There will be five quizzes. If a quiz is not taken, the grade for that quiz is 0.
        The best four quizzes will be averaged to be the equivalent of a test in your Class Average.
        Quizzes may be either digital or hand written. They will cover material since the last quiz or test.
FINAL: Comprehensive; **Date: Jul 27**
ATTENDANCE: Access Brightspace   **ASSIGNMENTS:** All odd problems unless otherwise noted.
W ### LAST DAY TO WITHDRAW with a W (Sun 7/16) ###   See last page.

SLO/Objectives - Upon successful completion, the student will be able to:	This outcome will be **measured** by one or more of the following instruments (exercises, tools, observations):
SLO1: The student will be able to evaluate finite and infinite limits, one-sided limits, and determine whether a function is continuous.	quizzes, tests, exams, homework, and class presentations.
SLO 2: The student will be able to apply the definition of the derivative to basic functions and determine the equation of a line tangent to a curve at a point on the curve.	quizzes, tests, exams, homework, and class presentations.
SLO3: The student will be able to differentiate polynomials, rational, trigonometric, exponential and other transcendental functions using Product and Quotient Rules.	quizzes, tests, exams, homework, and class presentations.
SLO4: The student will be able to utilize the Chain Rule in differentiating composite functions, the performance of implicit differentiation, and in related rate application problems.	quizzes, tests, exams, homework, and class presentations.
SLO5: The student will be able to find extrema and analyze curves using 1st and 2nd derivative tests, concavity, and in applied optimization problems.	quizzes, tests, exams, homework, and class presentations.
SLO6: The student will be able to evaluate basic antiderivatives and definite integrals to find areas using the Fundamental Theorem of Calculus.	quizzes, tests, exams, homework, and class presentations.

Student Learning Objectives

The **SUNY General Education (GE) Mathematics** requirement are addressed by the objectives above. Upon successful completion, students will demonstrate the ability to:

SUNY GE 1: Interpret and draw inferences from mathematical models such as formulas, graphs, tables and schematics   SLO 1, 2, 4, 5, 6
SUNY GE 2: Represent mathematical information symbolically, visually, numerically and verbally   SLO 1, 2, 3, 4, 5, 6
SUNY GE 3: Employ quantitative methods such as, arithmetic, algebra, geometry, or statistics to solve problems   SLO 1, 2, 3, 4, 5, 6
SUNY GE 4: Estimate and check mathematical results for reasonableness   SLO 1, 2, 4, 6
SUNY GE 5: Recognize the limits of mathematical and statistical methods   SLO 1, 2, 4, 6

Student Contributions
Students are expected to attend every class meeting, arriving on time.
Cell phones and/or other communication devices should be turned off for the duration of each class meeting.
Assignments are to be completed on time.
Students are expected to take all tests and quizzes as scheduled. There are no exemptions for any exams.
Students should expect to spend a minimum of 2 hours per week outside of class for every hour spent in class.
Students should comply with the WCC Student Code of Conduct, including: 1) respect for all, 2) no cheating.
https://www.sunywcc.edu/student-services/policies/student-conduct/student-code-conduct/

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Students with Disabilities & ADA
Westchester Community College (WCC) is committed to creating a learning environment that meets the needs of its diverse student body. If a student has a documented disability, it is the student's responsibility to self-identify by signing up through the Disability Services Office (DSO) either online or in person. Once signed up for accommodations, the student must inform the professor via a Referral to Faculty notification provided by the DSO. A Testing Accommodations Request form must be completed online or in person no later than three business days before the quiz/exam date to allow for accommodations to be arranged with the DSO.
The DSO is located in room G-51 on the ground floor of the Library in the back of the Academic Support Center. For more information regarding accommodations offered at WCC you may visit the Disability Services Office Website at https://www.sunywcc.edu/disabilityservices.

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All students must read and sign the below statement regarding requirements for withdrawing from class after the official college Final Withdrawal Date.

I understand that the final date to withdraw from this class is Sunday, July 16, 2023..
If I need to withdraw after that date, I will need to bring a note to Professor Battaly from the
WCC Health Office, explaining the medical need to withdraw.

_____   _____
Date   Signature

This syllabus may be changed (updated) during the course of the semester.