Applications of Calculus I (Math 1430) **Syllabus**   Fall 2022   Clifton Murray (Mr., Dr., Professor)
UNM-Valencia

Class MW 1:30-2:45p

Prerequisites: Grade of C or higher in Math 1220 (College Algebra) or Math 1240 (Pre-Calculus), or minimum
ACCUPLACER score of 249 (A&F) or Math ACT score of 26+ or math SAT score of 600+.

Instructor's available (email or Zoom) Hours MW 2:45-3:15p, 5:15-5:45p; T 4:15-5:45p; Th 11:45a-12:15p, 1:15 -1:45p, 4:15-
5:45p, and by appointment.
wcmurray@unm.edu   505-925-8727

MECS Division Chair: Dr. Ariel Ramirez, The Learning Center (in the Library building) 505-925-8912

Required Items:
Text: Calculus with Applications, 11th ed., by Lial, Greenwell, Ritchey
Scientific Calculator ("Scientific" means it has powers-of-ten notation capability, and trig functions). If it has Graphing
capability, that will be useful on occasion. (An Online calculator is Not recommended, because cell-phones and internet access
are Not allowed on tests.)
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Student Learning Goals & Objectives: Acquire the ability to
-Find the limit, as a variable approaches a specific value, of functions.
-Distinguish between, and calculate, average and instantaneous rates of change.
-Interpret the Derivative as the limit of rate-of-change.
-Find the derivative of an assortment of function types: variables raised to powers, polynomials, products and quotients of
 functions, composite functions, exponential and logarithmic functions.
-Use the derivative as a tool to determine function behavior.
-Use the derivative as a tool for finding function extrema.
-Use the limit and derivative as tools for solving applied problems.
-Solve problems involving rates of change of two variables (Related Rate problems.)
-Find the Antiderivatives of functions.
-Use antiderivatives to evaluate Integrals (via the Fundamental Theorem of Calculus.)
-Use antiderivatives/integration for finding the area between a graphed and an axis, and also between two graphed curves.
-Use antiderivative and integration techniques to solve applied problems.

Policies and Notices:

COVID: You must have satisfied the UNM Mandate regarding required vaccinations. If you experience symptoms, do not come
to class—email me, and I will work with you to keep up with the class. If you test positive for Covid, remain home for five
days—again, I will help you via email to stay up with the class.

After four accumulated absences, the student may be dropped by the instructor without further notice.

Missed tests: If a test is missed, the score for that test will be zero, and that will be the one score dropped at semester's end.
Note that a missed test disqualifies the student from receiving an A or A+ in the course, regardless of overall points earned.

Late homework. Credit may be reduced by 50% if one day late; minus 100% if two or more days late. Homework due dates
are indicated on the schedule accompanying this syllabus. (Extensions may be granted if late turn-in is due to emergency, and
Instructor has been notified.)

Persistent disruptive behavior, such as loud talking, ridiculing or intimidating the instructor or other students, or other forms
of distraction, will result in the offender being dismissed and dropped from the class.

Reporting Sexual Misconduct: Any report of sexual misconduct or gender discrimination made to a UNM faculty member
must be reported to the Office of Equal Opportunity and the Title IX Coordinator (acatena@unm.edu, 505-277-5251). For
more information on UNM policy re sexual misconduct see https://policy.unm.edu/university-policies/2000/2740.html

Homework Format: Homework problems should be clearly separated, either by whitespace (that means more space between
main problems than within the problem), or by a separation line between main probs (not between subprobs a, b, c…). Turn
homework in by *day*—not by section. That is, if sec 3.1 and 3.2 are presented on the same day, 3.1 and 3.2 should be grouped
together. Only one turn-in is allowed, 2nd , partial submissions will not be scored.

Also, please make the **main** prob # extra BIG --5, 11, 21, … (**not** the a,b,c…). This is to help make the separation between main problems really obvious, so the instructor can find and check the main problems fast.

A *Formula/Equation sheet* will be provided before each test. Only minor notations on the sheet are allowed. No example problems are permitted on the formula sheet.

Tutoring: Free. https://valencia.unm.edu/campus-resources/the-learning-center/learning-center.html for hours; https://esurvey.unm.edu/opinio/s?s=131505 to request an appointment. Or, you can just go over there and tell them you're interested in working with a tutor. The tutors like doing it, plus they learn math while working with you.

Final Exam Minimum Grade is **70%** in order to receive above a "D", regardless of other test or homework scores.

Grading:	Maximum points
Homework	100
4 tests	400
Drop lowest one of tests or homework:	-100
Final exam (not dropped)	150 (**min 105 (70%) to receive higher than a "D".**)
	550 Max poss course total

("x" = student's total accumulated points)

$536 \leq x \leq 550$	A+	(unless a test is missed, or homework score is less than 50%).
$509 \leq x < 536$	A	(unless a test is missed, or homework score is less than 50%)
$495 \leq x < 509$	A-	
$481 \leq x < 495$	B+	
$454 \leq x < 481$	B	
$440 \leq x < 454$	B-	
$426 \leq x < 440$	C+	
$399 \leq x < 426$	C	
$385 \leq x < 399$	C- *Note: a C- may not meet the prereq for some courses or requirements of some programs	
$330 \leq x < 385$	D	
$x < 330$	F	

No "Incomplete" (I) grades will be given.