Calculus I/Math 162 Syllabus   UNM-Valencia Campus   **Fall 2018** meets MW 4:30-6:15p
Instructor: Clifton Murray, office A126A , Hours **MW** 3:15-4:15p, **T** 4:15-5:30p, **Th**,11:45a-12:30p, 1:15-2:45p, 4:15-5:45p.
wcmurray@unm.edu,   505-925-8727

Prerequisites: C or better in both Precalculus (Math 150) and Trigonometry (Math 123).

Required Materials:
   Text: Thomas' Calculus **14th** ed. by Weir & Hass—big, expensive, but good all the way thru Calc III at UNM-Valencia.
   Calculator: A scientific calculator will be useful on homework, in class, and on tests. Cellphone calculators are **not
    permitted** on tests**.**

Student Learning Objectives: By the end of the course, the student should be able to explain and solve problems involving at least the following: (1)Limits; (2)the Derivative; (3)the derivative considered as a rate of change; (4)finding local extrema of functions and (5)optimization problems; (6)anti-derivatives ("integrals"); (7)differential equations solvable by integration; (8)estimating changes with differentials; (9)estimation with finite sums; (10)the fundamental theorem of calculus; (11)definite integrals; (12)finding the area between two curves

Academic Dishonesty, as defined in the UNM-Valencia catalog, includes copying work from other students. Anyone doing this on tests is subject to disciplinary action, ranging from "a reduced or failing grade for the work in question and/or the course" to "dismissal from the University".

Disruptive Behavior is any behavior which interferes with other students' learning &/or with the instructor's ability to guide that learning. Examples include repeated loud talking/ laughing/chatting with your buddy which require repeated warnings from the instructor, or derisive/ridiculing comments toward other students or the instructor (the quickest way to get expelled from the class). Just keep your motives constructive, and it'll be a good educational experience.

Any *sexual misconduct* or gender discrimination brought to a faculty members' attention must, per UNM policy, be reported to the Office of Equal Opportunity and the Title IX Coordinator. For information re what comprises sexual misconduct, see
https://policy.unm.edu/university-policies/2000/2740.html

Cell phones and similar devices: OFF at all times in the classroom. No text messaging while class is in session. No use of cell or smart-phones during tests; if a student temporarily leaves class during a test, she/he must leave phone with instructor.

Children in Class: Sorry, but children are not permitted in class due to liability concerns.

Disabilities: Should you have a disability requiring special accommodation, please bring the instructor appropriate documentation from Equal Access Services--Jeanne Lujan, coordinator, 505-925-8910, jmlujan@unm.edu

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—stapled—not separate.

        Also, put the **main** prob #--5, 11, 21,…etc (**not** a,b,c…).—to the left of all other work. This is to help the instructor find and check the main problems fast. So, make the separation between main probs really clear.

Attendance: If a student does not appear the 1st two days of class, the instructor may drop that student. Otherwise,
After 4 unexcused absences, the student may be dropped from the course without further notice.

Makeup Work: Tests: There are no makeup tests, except in verified emergencies—in such cases, expect a maximum score of 80%.
(Early tests, on the other hand, might can be arranged without penalty.)
    Late Homework: 1 day late, minus 50%. 2 days late, zero credit.

Final Exam Minimum: **65%. Less will result in an automatic course grade of D or lower**, regardless of other test or
homework scores.

Grading	Max possible points
Homework	100
4 tests	400
Drop lowest one of tests or homework:	-100
Final Exam* (not dropped, comprehensive)	150 *Again: You must make 65% min, for course grade > D.
	550 Max poss course total

Let total course score = x:

$532 \leq x \leq 550$	A+	(unless a test is missed or hmwk score < 50%)
$512 \leq x < 532$	A	(unless a test is missed)
$495 \leq x < 512$	A-	
$477 \leq x < 495$	B+	
$457 \leq x < 477$	B	
$440 \leq x < 457$	B-	
$422 \leq x < 440$	C+	
$402 \leq x < 422$	C	
$385 \leq x < 402$	C-	
$330 \leq x < 385$	D	
$0 \leq x < 330$	F	

FALL 2018 CALCULUS I MATH 162
4:30-6:15p
MONDAY
CLIFTON MURRAY
UNM-VALENCIA
WEDNESDAY

MONDAY	WEDNESDAY
20 AUG 2.1 SLOPE. TANGENT LINES. RATES OF CHANGE. HMWK ↑ #1, 4, 7, 9, 19 DUE NEXT CLASS, ALWAYS	22 AUG 2.2 LIMITS #1, 11, 15, 19, 21, 23, 25, 27, 31, 35, 43, 45, 47, 58, 63
27 AUG 2.4 ONE-SIDED LIMITS #1, 3, 11, 15, 23, 27, 31. 2.5 CONTINUITY #1, 3, 5, 13, 17, 19, 31, 35 TURN IN BOTH SECTIONS AS SINGLE PACKET STAPLED	29 AUG 2.6 INFINITE LIMITS #1, 3, 5, 13, 15, 17, 23, 27, 29, 37, 45, 85
3 SEP LABOR DAY ~ NO CLASS	5 SEP RVW
10 SEP TEST #1	12 SEP 3.1 DERIVATIVE AT A POINT #1, 5, 29, 31 3.2 DERIVATIVE OF A FUNCTION #1, 3, 13, 27, 29, 37, 45, 47, 49
17 SEP 3.3 RULES TO FIND DERIVS FAST #1, 7, 13, 17, 21, 41a, 41c 3.5 DERIVS OF TRIG FUNCTIONS #1, 3, 5, 35	19 SEP 3.4 DERIV AS RATE OF CHANGE #3, 13, 15, 25. 3.6 DERIV OF COMPOSITE FNS: CHAIN RULE 3.6 #1, 3, 9, 17, 25, 85
24 SEP 3.7 IMPLICIT DIFFERENTIATION #1, 5, 19, 32, 44 3.8 RELATED RATE PROBLEMS #1, 3, 13	26 SEP 3.8 MORE RELATED RATES #25, 27, 38, 40
1 OCT RVW	3 OCT TEST #2
8 OCT 3.9 LINEARIZATION. THE DIFFERENTIAL #1, 17, 29, 35, 37, 41, 45, 47, 49	10 OCT 4.1 HOW FIND EXTREMA OF FUNCTIONS #1, 3, 5, 21, 27, 45, 69 4.2 MEAN VALUE THEOREM #49, 50
15 OCT 4.3 IS FN INCR OR DECR? — 1ST DERIV TEST #1, 3, 19, 41, 43 4.4 CONCAVITY OF CURVES #1, 7, 9	17 OCT FINISH 4.4. 4.5 OPTIMIZATION #1, 2, 3, 7, 9, 13
22 OCT 4.6 NUMERICAL ESTIM. OF SOLⁿ TO EQⁿ — NEWTON'S METHOD #1 3.9 REVISITED: DIFFERENTIALS #38, 44	24 OCT RVW
29 OCT TEST #3	31 OCT 4.7 ANTIDERIVATIVES #1, 3, 17, 19, 21, 35, 71, 83, 102, 106
5 NOV 5.2 SIGMA (Σ) NOTATION #1, 3, 5, 11, 13, 15, 17 5.1 ESTIM AREA UNDER CURVE W/ RECTANGLES #6	7 NOV 5.3 RIEMANN SUM & THE DEFINITE INTEGRAL #1, 29, 35, 41, 51, 55
12 NOV 5.4 FUNDAMENTAL THEOREM OF CALCULUS. FIND AREA WITH DEFINITE INTEGRALS #1, 13, 27, 33, 39, 47, 51	14 NOV 5.5 MORE ADVANCED ANTIDERIVS — "U, dU SUBSTITUTION" #1, 3, 17, 19, 21, 25, 29, 55
19 NOV 5.6 AREA BETWEEN CURVES. CHANGING LIMITS IN UdU SUBSTITUTION #5, 9, 12, 25, 27, 41, 43	21 NOV RVW
26 NOV TEST #4	28 NOV RVW TEST 4 FOR FINAL
3 DEC RVW FOR FINAL	5 DEC RVW FOR FINAL
10 DEC FINAL EXAM 4:30-6:30p	12 DEC