Calculus I/Math 162 Syllabus  
UNM-Valencia Campus  
Fall 2018  
meets MW 4:30-6:15p

wcsmurray@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.

<table>
<thead>
<tr>
<th>Grading</th>
<th>Max possible points</th>
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<tbody>
<tr>
<td>Homework</td>
<td>100</td>
</tr>
<tr>
<td>4 tests</td>
<td>400</td>
</tr>
<tr>
<td>Drop lowest one of tests or homework:</td>
<td>-100</td>
</tr>
<tr>
<td>Final Exam* (not dropped, comprehensive)</td>
<td>150 *Again: You must make 65% min, for course grade &gt; D.</td>
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</tbody>
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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
20AUG 2.1 Slope, Tangent Lines, Rates of Change
27AUG 2.4 One-Sided Limits
27AUG 2.5 Continuity
3SEP Labor Day - No Class

10SEP Test #1
17SEP 3.3 Rules to Find Derivs Fast
3.5 Derivs of Trig Functions
24SEP 3.7 Implicit Differentiation
3.8 Related Rate Problems

10OCT RVW
8OCT 3.9 Linearization, The Differential
15OCT 4.3 Is f Ince or Decr? - 12th Deriv Test
4.9 Concavity of Curves
22OCT 4.6 Numerical Estim. of Solns to Eqns, Newton's Method
3.9 Revisited: Differentials

29OCT Test #3
5NOV 5.2 Sigma (Σ) Notation
5.1 Estim Area Under Curve by Rectangles
12NOV 5.4 Fundamental Theorem of Calculus
19NOV 5.6 Area Between Curves, Changing Limits in UDU Substitution

26NOV Test #4
3DEC RVW for Final
10DEC Final Exam 4:30-6:30

22AUG 2.2 Limits
29AUG 2.6 Infinite Limits

12SEP 3.1 Derivative at a Point
3.2 Derivative as a Function
19SEP 3.4 Deriv as Rate of Change
26SEP 3.8 More Related Rates

10OCT 4.1 How Find Extrema & Functions
4.2 Mean Value Theorem
17OCT Finish 4.4
4.5 Optimization

24OCT RVW
31OCT 4.7 Antiderivatives
7NOV 5.3 Riemann Sums & The Definite Integral
14NOV 5.5 More Advanced AntiDerivs - UDU Substitution
21NOV RVW
28NOV RVW Test 4 For Final

5DEC RVW for Final
12DEC