

University of New Mexico- Valencia Campus
Department of Science & Mathematics
Math 150- Sec. 501- CRN # 22953)
Pre-Calculus
Fall 2010

Instructor: Khaled Kassem (Mr. K)

Phone Number: 925-8609

Class Schedule: Thursdays 03:00-05:45PM @ A-129

Office Room: A-107

Office Hours: Monday & Wednesday: 04:15-05:45PM.

Tuesday & Thursday 11:45AM-01:00PM, and 02:15-03:00PM

Text: *Pre-calculus, Mathematics of Calculus, 5th Edition, Stewart et al.*

Calculator: TI 83 Plus recommended, not required

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Please note the following guidelines for the course:

-Prerequisite: Grade of C (not C-) or better in Math 121

- Grades: Your grade will be based on your performance on the following assignments and exams. Your instructor may also give short in-class quizzes and special homework assignments that will contribute to your grade. To receive a C grade, or better, for this course you must have at least a 70% grade on the final exam **and** a 72% overall average.

Quizzes and Assignments 100 points

3 in-class tests 300 points

Final Exam 200 points

Total 600 points

Your overall average will be found by dividing your total points by 6 and applying the following measure:

A 90% -100%

B 80% - 89%

C 72% - 79%

D 60%- 70%

F Below 60%

Note: The Final Exam will be held on Thursday, December 16, @ 03:00-05:00PM (In-Class, A-129)

- Calculator policy: Graphing calculators are **NOT ALLOWED** on any tests, including the Final Exam. A scientific calculator may be necessary on all tests, including the Final Exam. Homework and non-graded work may be done with the help of a graphing calculator. A graphing calculator may be used by the instructor during class as a teaching aid.

- Homework: Your homework is your most important effort in this class; homework is how you actually learn the material that will be on the quizzes and exams. Expect to do 2-3 hours of homework for every hour of class meeting time (on average 10-15 hours per week). Keep all of your homework together in a folder so that if you are having trouble in the course, you can bring it with you when you go to see your instructor or get tutoring.

- Attendance is mandatory, and if you have three or more unexcused absences, you may be dropped from the course (we WILL enforce this policy). However, it is **YOUR** responsibility to drop the course if you decide to stop attending classes. If you don't, you may receive an F.

- Missed Exams: If you miss an exam, contact your instructor immediately and provide a note (hardcopy or email) explaining your reason. Provide enough detail so that the instructor can check your excuse. Make-up tests will only be given if your excuse is valid. "I wasn't ready for it" is not a valid excuse. Be aware that make-up exams are more difficult than the original exam. **No exam scores will be dropped. Graphing**

Calculators are NOT allowed on any in-class exam including the final exam. You can use a scientific calculator. A note card can be used only on the final exam.

- Student Behavior: According with the Code of Conduct as stated in the Policies and Regulations for UNM, student activities that interfere with the rights of others to pursue their education or to conduct their University duties and responsibilities will lead to disciplinary action. This includes any activities that are disruptive to the class and any acts of academic dishonesty. Students are expected to behave in a courteous and respectful manner towards the instructor and their fellow students.

Academic Dishonesty: Academic dishonesty is defined in the 2010-2012 UNM-Valencia catalog, and includes but not limited to copying work from other students. Any student found doing this 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.

- Disability Statement: We will accommodate students with documented disabilities. During the first two weeks of the semester, those students should inform the instructor of their particular needs and they should also contact **Equal Access Services** at 925-8560.

- Academic support and tutoring: The Valencia Campus Library provides a quiet atmosphere for study and is an excellent resource for supplementary materials. It also has a link to all your courses syllabi located at <http://www.unm.edu/~unmvclib/syllabifall2010.htm>. The Learning Center, TLC, (925-8900) offers tutorial and individualized instruction at no cost to the student. Also, for those who drive from Albuquerque, you can get tutoring for this class at UNM- Main Campus at the CAPS- Center for Academic Program Support; 3rd floor of Zimmerman Library (277-4560).

Math 150 Tentative Course Schedule- Fall 2110

<u>Week</u>	<u>Topic</u>	<u>Homework</u> (only odd problems, unless otherwise stated)
1 (8/26)	1.2	23-69, 83-87
	1.3	17-31, 37, 45-69, 73-87, 93, 97, 99,101-104 <u>all</u>
	1.4	7,11-15,21,25,27,31,35-39,43,45,51-57,61,63,67,69,75,77,93
2 (09/02)	1.8	17, 21-25, 29, 31, 47, 49, 55, 63, 71-93
	2.1	1-7, 14-19 <u>all</u> , 21, 23, 25-36 <u>all</u> , 41-51, 55
	2.2	11, 13, 17, 23, 25, 31-35 by hand, 39-45, 53, 65, 67
3 (09/09)	Labor Day, Monday, Sep 6	
	2.3	13, 15, 19, 21-28 <u>all</u> , 31-39
	2.4	3-9, 13-19, 41, 42, 44, 47, 53, 55, 61-67
<i>Last day to drop without a grade: Friday, Sep 10</i>		
4 (09/16)	2.5	9, 13, 17-27, 33, 35, 39, 41, 49, 59-65
	2.6	5-13, 17, 21,23,27,29
	2.7	7-11, 19-27, 31-37, 41, 45, 47, 57-61, 62
<i>Last day to change grading options: Friday, Sep 17</i>		
5(09/23)	2.8	9, 11, 17, 27, 29, 37-47, 51,53,71,75
	Test 1	
6 (09/30)	3.1	1-5, 9, 13, 17, 20, 21, 25-31, 35, 49, 59
	3.2	1-9, 13, 17, 25, 27, 33, 37, 39, 47, 51-65
	3.3	11-15, 27-31, 41, 43, 47, 51-55
7 (10/07)	3.4	11,13,17,21-25,31-35,39,41,45,47,51,53,57,61,65
	3.5	7, 9, 13, 19, 21, 33-45, 49, 59, 61
	3.6	1,3,7,9,17-23,27,29,33,39,49,51,57-61
8 (10/14)	Fall Break, Oct 14 – 15	
9 (10/21)	Test 2	

	4.1	15-25, 29-43, 65, 67(a) (b)
10 (10/28)	4.2	1,5,7,11,17,19,23,27,29,37,39,49,55,59-63
	4.3	3-9, 21, 27, 33, 41-45, 51
	4.4	5,17,23,27,31,41,47,49,67,71,75,77
11(11/04)	4.5	3, 5, 9, 11, 15-27
	9.1	3,11,19,21,25,27,31,41,47,49
12(11/11)	9.2	13, 21, 23, 45-57
	9.3	5, 7, 11-17, 21-25, 33, 35
		<i>Last day to withdraw <u>without</u> the Dean's approval: Friday, Nov 12 (WP/WF required)</i>
13 (11/18)	Test 3	
	10.1	1-5, 11-15, 25, 29,35,39,49
	10.2	1,3,7,9,19-23,29,31,35,47,49,51
	10.3	1, 3, 7, 11, 13, 19, 21, 31-35
14 (11/25)		Thanksgiving Holiday, Nov 25 – 28
15 (12/02)	12.1	1-5, 7-11(table only), 13,15,23,25
	12.2	3-20 <u>all</u> , 21-23 (no graph), 25(b) (c), 27-33
	12.4	3-13, 15-17(table only), 19-23, 27, 29
16 (12/09)		Review for Final exam
		<i>Last day to withdraw <u>with</u> the Dean's approval: Friday, Dec 10</i>
17 (12/16)		Final Exam: Thursday, Dec 16@03:00-05:00PM, In-Class, A-129)

List of Student Learning Outcomes (SLO) for Math 150

Course Goal #1: Communication

Addresses UNM Core Area 2/HED Area II: Mathematics (Algebra Competencies)

SLO 1: Students will be able to use correct mathematical notation and terminology.

SLO 2: Students will be able to read and interpret graphs.

Course Goal #2: Functions

Addresses UNM Core Area 2/HED Area II: Mathematics (Algebra Competencies)

SLO 1: Students will be able to evaluate functions and difference quotients for a variety of functions.

SLO 2: Students will be able to graph some basic functions; this includes power, root, reciprocal, and piecewise defined functions.

SLO 3: Students will be able to calculate an average rate of change of a function and to interpret its meaning.

SLO 4: Students will be able to shift, and reflect graphs, and to compress and stretch graphs horizontally and vertically.

SLO 5: Students will be able to set up models using functions in word problems.

SLO 6: Students will be able to find extreme values of quadratic functions.

SLO 7: Students will be able to compose functions and to express a given functions as a composition of two simpler functions.

SLO 8: Students will be able to identify one-to-one functions and find and graph their inverses.

Course Goal #3: Polynomial and Rational Functions

Addresses UNM Core Area 2/HED Area II: Mathematics (Algebra Competencies)

SLO 1: Students will be able to determine the end behavior and the zeros of polynomial functions. They will be able to use this to graph the function.

SLO 2: Students will be able to divide polynomials and to understand the Division Algorithm.

SLO 3: Students will be able to solve quadratic equations with complex roots.

SLO 4: Students will be able to use the Fundamental Theorem of Algebra and the Complete Factorization Theorem.

SLO 5: Students will be able to find horizontal, vertical, and skew asymptotes of rational functions. They will be able to graph rational functions.

Course goal #4: Exponential and Logarithmic Functions

Addresses UNM Core Area 2/HED Area II: Mathematics (Algebra Competencies)

SLO 1: Students will be able to graph exponential and logarithmic functions.

SLO 2: Students will be able to solve a variety of exponential and logarithmic equations.

SLO 3: Students will be able to set up exponential growth and decay models and to solve the associated word problems.

Course goal #5: Analytic Geometry

Addresses UNM Core Area 2/HED Area II: Mathematics (Algebra Competencies)

SLO 1: Students will be able to identify and graph the conic sections.

SLO 2: Students will be able to graph parametric equations in two dimensions that involve algebraic functions. They will be able to eliminate the parameter.