University of New Mexico- Valencia Campus Department of Mathematics, Engineering, & Science & (MES) Math 121- Sec. 501- (CRN# 33672) College Algebra - Spring 2017

Instructor: Khaled Kassem	Office Hours:
	Monday: 09:55-11:55 am, 01:20-02:50 pm
	(Faculty Help), and 04:20-04:50 pm
Office Room: A-142 E	Tuesday: 04:20-05:20 pm (Math Center
	Hour)
Codes provided below are for Math 121 A	Wednesday: 09:55-11:55 am, 01:20-02:50
	PM (Faculty Help), and 04:20-04:50 pm
Math 121 B, C, and D codes will be	Thursday: 04:20-05:20 PM (STEM Center
provided later.	Hour),
Instructor Email: khaled@unm.edu or use	ALEKS Customer Support Email:
the "Message" button in UNM LEARN	http://support.aleks.com.
https://learn.unm.edu.	
Class Days, Times, and Location:	ALEKS web: www.aleks.com (714) 619-
MW 12:00-01:15 pm SCC-200	7090
ALEKS Course Code: EUGXJ-699RT	Financial Aid Access code:
	4B346-EFDCA-BEA2F-F5710

I. Course Description:

MATH 121 (3) [Note: See Restrictions earlier in Mathematics and Statistics] Preparation for MATH 150 and 180. The study of equations, functions and graphs, especially linear and quadratic functions. Introduction to polynomial, rational, exponential and logarithmic functions. Applications involving simple geometric objects. Emphasizes algebraic problem solving skills. Meets New Mexico Lower-Division General Education Common Core Curriculum Area II: Mathematics (NMCCN 1113). (I) Prerequisite: ACT=>22 or SAT=>510 or (MATH 118 and MATH 119) or (MATH 101 and MATH 102 and MATH 103) or MATH 120 or Compass Algebra >54 or Compass College Algebra >33.

II. Math 121 Student Learning Outcomes: By the end of the course, students will be able to: A. Understand the concept of a function

- 1. Apply the definition of a function
- 2. Identify domain and range. Interpret in context when appropriate.
- 3. Use function notation to evaluate functions.

B. Build New Functions from Existing Functions

- 1. Use graphing transformations
- 2. Use function arithmetic
- 3. Find inverse functions

C. Build and Analyze Graphs

- 1. Understand the relationship between a function's equation, table and graph.
- 2. Identify or sketch the following key features of a graph: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; slope; vertex; and end behavior.

- 3. Create graphs using key features.
- 4. Write the equation of a function or circle given its graph based on the key features shown. (Reverse of above outcome)
- 5. Interpret key features of functions in context.

D. Apply Algebraic Techniques

- 1. Evaluate numeric expressions in exact form and find decimal approximations for irrational numbers.
- 2. Solve equations and inequalities
- 3. Simplify algebraic expressions to analyze functions and graphs.
- **III. Registration:** Ideally, if you are starting Math 121 in the beginning of the semester, you should try to complete the four modules A, B, C, and D by the end of the term to be able to take Math 121 paper and pencil final exam.
- **IV. Text:** This course utilizes the ALEKS software and notebook that you are required to purchase. We will require you to write out your work in your notebooks. You must bring this notebook to class with you. There is no other text for this course.
- <u>V. Calculators:</u> There is an online calculator in the ALEKS system. Ideally, no other calculator should be used while you are working on ALEKS, but generally you may use a scientific calculator all the time.
- **VI. Attendance Policy:** If a student misses 2 classes in the first week, 3 consecutive class periods, or 5 classes in total, the student may be dropped from the class. Tardiness or early departure may be regarded as an absence. It is the student's responsibility to withdraw from the course if he/she stops attending.
- <u>VII. Weekly Progress Requirement:</u> You are required to be in class during your regularly scheduled class time. You are also required to complete module A by the end of week 4 (February 13), module B by week 8 (March 13), module C by week 12 (April 10), and module D by week 16 (May 07). Five hours a week is the minimum amount of time you must spend on ALEKS.
- IX. ALEKS. Assessments: ALEKS will periodically provide you with progress assessments over the material you have been studying. These assessments cannot be skipped and will not affect your grade. They provide the software, your instructor, and you with detailed information about your progress, and they will allow ALEKS to continue to provide you with the material you are ready to learn. Although assessments do not affect your grade, they do place you in the course, so please be careful as you take them. You have the potential to gain or lose topics while taking an assessment.
- **X. Student Expectations:** Students are expected to conduct themselves in a polite, courteous, professional and collegial manner. Cell phones must be set on silent. Please step into the hall if you need to take a call during class. Cell phones must be turned off during exams.
- **XI. Disability Statement:** If you have a documented disability, please provide me with a copy of your letter from Equal Access Services as soon as possible to ensure that accommodations are provided in a timely manner. The Equal Access Office can be reached at 925-8560.
- XII. UNM's Policy on Academic Honesty: Each student is expected to maintain the highest standards of honesty and integrity in academic and professional matters. The University reserves the right to take disciplinary action, including dismissal, against any student who is found responsible for academic dishonesty. Any student who has been

judged to have engaged in academic dishonesty in course work may receive a reduced or failing grade for the work in question and/or for the course. Academic dishonesty includes, but is not limited to, dishonesty in quizzes, tests or assignments, claiming credit for work not done or done by others; hindering the academic work of other students; and misrepresenting academic or professional qualifications within or outside the University.

XIII. Course Grading:

40% Instructor Discretion. This may include some or all of the following: Attendance, ALEKS time, ALEKS progress, activities, quizzes, or written assignments. 30% Modules A, B, C, and D paper and pencil tests

30% Final Exam. It is a paper-pencil exam you must take in class. You may use a 3 inch by 5 inch notes-card, and a scientific calculator while you take the exam. Cell phones, laptops, tablets, or any device with access to the internet are prohibited in the testing area. You must show an ID to take your final exam. You must finish the exam in one sitting within a maximum time of 2 hours. You must get a score of 70% or better on this exam to pass the course and receive a grade. Final exam cannot be retaken.

XIV. Title IX Statement: In an effort to meet obligations under Title IX, UNM faculty, Teaching Assistants, and Graduate Assistants are considered "responsible employees" by the Department of Education (see pg 15 -

http://www2.ed.gov/about/offices/list/ocr/docs/qa-201404-title-ix.pdf). This designation requires that any report of gender discrimination which includes sexual harassment, sexual misconduct and sexual violence made to a faculty member, TA, or GA must be reported to the Title IX Coordinator at the Office of Equal Opportunity (oeo.unm.edu). For more information on the campus policy regarding sexual misconduct, see: https://policy.unm.edu/university-policies/2000/2740.html

<u>XV. Support Services:</u> The Valencia Campus Library provides a quiet atmosphere for study and is an excellent resource for supplementary materials. Students can schedule appointments for STEM Center tutoring at (505) 925-8515. The Learning Center (which includes The Math Center, 925-8907) also offers tutoring at no cost to the student.

XVI. Computer Lab Responsibility: Please be advised that use of computer labs on UNM properties is governed by "Policy 2500: Acceptable Computer Use" which can be found at http://policy.unm.edu/university-policies/2000/2500.html. Food and drink are also prohibited in any computer lab on campus. Anyone violating these policies is subject to possible suspension and loss of computer lab privilege.

XVII. Important Dates:

01/16(Monday) Martin Luther King, JR. Day (NO Classes)

01/27 (Friday) Last day to add courses or change sections

02/03(Friday) Last Day to Drop without a grade, Last Day to Drop with a Refund

02/10(Friday) Last day to change grading options

March 12-19 Spring Break - No Classes

04/14 (Friday) Last day to withdraw without the Dean's approval

05/05 (Friday) Last day to withdraw with the Dean's approval

Last Possible date for Final Exam: Wednesday, May 10, 2017 at 12:00-02:00 pm in SCC 200. You may use a 3 inch by 5 inch notes-card, and a scientific calculator while you take the exam.