

College Algebra

Math 121

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Office Hours
TR 3:00-4:00 in the LRC
or by appointment

1 Overview

Welcome to Math 121. Here is the UNM course description.

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. (I)

Meets New Mexico Lower-Division General Education Common Core Curriculum Area II: Mathematics (NMCCN 1113).

Prerequisite: (101 and 102 and 103) or (118 and 119) or 120 or ACT Math ≥ 22 or SAT Math Section ≥ 540 or ACCUPLACER Elementary Algebra =104-120 or ACCUPLACER College-Level Math =37-68.

Note: This syllabus is subject to change, if needed.

2 Course Learning Outcomes

1. Understand the concept of a function
 - (a) Apply the definition of a function.
 - (b) Identify domain and range. Interpret in context when appropriate.
 - (c) Use function notation to evaluate functions.
2. Build New Functions from Existing Functions
 - (a) Use graphing transformations
 - (b) Use function arithmetic
 - (c) Find inverse functions
3. Build and Analyze Graphs
 - (a) Understand the relationship between a function's equation, table and graph.

- (b) 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.
 - (c) Create graphs using key features
 - (d) Write the equation of a function or circle given its graph based on the key features shown. (reverse of above outcome)
 - (e) Interpret key features of functions in context.
4. Apply Algebraic Techniques
- (a) Evaluate numeric expressions in exact form and find decimal approximations for irrational numbers.
 - (b) Solve equations and inequalities
 - (c) Simplify algebraic expressions to analyze functions and graphs.

3 Required Text

The required text for this course is:

- College Algebra, Tenth Edition, by Sullivan

We will be using MyMathLab (MML), so you will need an MML access code. Our MML course ID is **barnett44834**. The MML access code comes with an eText, which can be used as your primary textbook, if you are okay with not having a physical copy.

4 Attendance Policy

Attendance in the course is required. If a student misses two classes in the first two weeks of the semester, three consecutive class periods or five total, I reserve the right (but not the obligation) to drop the student from the class. If you stop attending class for any reason, it is your responsibility to make sure you drop the class, or risk getting a failing grade.

5 Course Structure

The course content includes the following.

- In-Class Worksheets (100 points)
 - 11 in-class worksheets, worth 10 points each. These will be turned in, and will be graded on participation and effort.
- MyMathLab Homework (100 points)
 - We will be using <http://mymathlab.com> for homework. There will be 5 homework assignments, worth 20 points each.
- Quizzes (100 points)

- There will be 10 quizzes given in class, worth 10 points each. The questions on the midterm and final will resemble the quiz questions, so the quizzes are a good source of practice problems.
- Midterm (100 points)
 - The midterm will be taken in class, and will cover roughly the first half of the course material. It will be a timed exam lasting 1.5 hours.
- Final (150 points)
 - The final exam will be taken in class, and will be comprehensive. It will be a timed exam lasting one full class period, which is 2.75 hours.
- Total (550 points)

6 Grading Policy

Your grades will be calculated as follows.

Point Total	Grade
[539,550]	A+
[506, 539)	A
[495,506)	A-
[484,495)	B+
[451,484)	B
[440,451)	B-
[429,440)	C+
[385,429)	C
[374,385)	D+
[341,374)	D
[330,341)	D-
[0,330)	F

7 Make-up Policy

Late homework assignments will not be accepted, unless there is a valid reason. In these rare cases, the student will need to request the password to access their online homework after the due date. Quizzes may be made up in the event of emergency or extenuating circumstance only.

8 Important Administrative Dates

Date	Event
June 7	Last day to add or change sections
June 14	Last day to drop without a “W”
July 12	Last day to withdraw without student services permission
July 26	Last day to withdraw with student services permission
July 26	Last day to change grading options

9 Academic Integrity

We will follow university policy on academic integrity.

Having academic integrity is paramount to your success in any class. Plagiarism or cheating is not tolerated. Any instance of this will result in a grade of zero for that assignment. Here is the link to the UNM Academic Dishonesty Policy: <https://policy.unm.edu/regents-policies/section-4/4-8.html>. The policy states:

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, up to and including dismissal, against any student who is found guilty of academic dishonesty or who otherwise fails to meet the expected standards. Any student 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; misrepresenting academic or professional qualifications within or without the University; and nondisclosure or misrepresentation in filling out applications or other University records.

10 Students with Disabilities

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.

11 EQUAL OPPORTUNITY AND NON-DISCRIMINATION:

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 page 15 of this [link](#)). 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>.

12 Citizenship And/Or Immigration Status

All students are welcome in this class regardless of citizenship, residency, or immigration status. Your professor will respect your privacy if you choose to disclose your status. As for all students in the class, family emergency-related absences are normally excused with reasonable notice to the professor. UNM as an institution has made a core commitment to the success of all our students, including members of our undocumented community. The Administration's welcome is found on our website: <http://undocumented.unm.edu>

13 Tentative Schedule

Week	Date	Day	Topics
1	Jun 4	Tue	Syllabus, 1.2, 1.4 2.1, 2.2, WS 1
	Jun 6	Thu	Q1 , 2.4 4.3, WS 2
2	Jun 10	Mon	HW 1 Due at 11:59 PM
	Jun 11	Tue	Q2 , 3.1, 3.2 3.3, WS 3
	Jun 13	Thu	Q3 , 3.4 3.5, WS 4
3	Jun 17	Mon	HW 2 Due at 11:59 PM
	Jun 18	Tue	Q4 , 1.1, 1.5 1.6, WS 5
	Jun 20	Thu	Q5 , 1.7 6.1, WS 6
4	Jun 24	Mon	HW 3 Due at 11:59 PM
	Jun 25	Tue	Q6 , 6.2 6.3, WS 7
	Jun 27	Thu	Q7 , 6.4 Review, WS 8
5	Jul 2	Tue	Midterm Exam
	Jul 4	Thu	Independence Day (no class)
6	Jul 9	Tue	6.5, WS 9 6.6, WS 10
	Jul 11	Thu	Q8 , 6.7 6.8, WS 11
7	Jul 15	Mon	HW 4 Due at 11:59 PM
	Jul 16	Tue	Q9 , 5.1 5.2, WS 12
	Jul 18	Thu	Q10 , 2.3, 4.1 8.1, WS 13
8	Jul 22	Mon	HW 5 Due at 11:59 PM
	Jul 23	Tue	Review, WS 10 Review, WS 11
	Jul 25	Thu	Final Exam