

MATH 121 College Algebra Sect. 503 - MW 3:00 - 4:15 PM in A127

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You may also use the message button in <https://learn.unm.edu> to email me or other classmates.

Office Hour: A-123: M 10:30 am – 12:00 pm, 1:00 pm – 2:30 pm; T 10:30 am – 11:30 am

Math Center: W 10:30 am – 12:00 pm, 1:00 pm – 2:30 pm; or by appointment

Course Prerequisites

In order for you to enroll in this course you will need to meet one of the following criteria:

- ACT score greater or equal to 22
- SAT score greater or equal to 510
- Grade of C or better in MATH 120
- Compass Algebra score greater than 54
- College Algebra placement score greater than 33

Check with your advisor to determine if you meet one of these requirements.

Course Overview

College Algebra prepares you for, and is one of the prerequisites for Math 150 (Pre-Calculus), Math 123 (Trigonometry), and Math 180 (Elements of Calculus I). It is also a graduation requirement for many majors at UNM. It is the study of equations, functions and graphs, especially those involving linear, quadratic, exponential, and logarithmic functions. You will also receive an introduction to polynomial and rational functions and their graphs. And you will be asked to handle various types of applications of these functions.

This course emphasizes algebraic problem solving skills, so be ready to work those algebra muscles! If it has been a while since you have done any algebra, plan on spending time “catching up” during the first few weeks of the semester.

Student Learning Outcomes

A list of the Course Goals and Student Learning Outcomes as posted on the main campus website for this course are listed at the end of this syllabus and on your schedule. You should skim through these to know what to expect from this course.

Text and Tools - Required

The text for this course is **College Algebra, Tenth Edition, by Sullivan**. The bookstore should have hard copies of the book with MML access codes, or just the access codes available. Or you may purchase the access code when you register in MML for our course. If you want a hard copy of the book, rather than just reading the etext, be sure you buy one with a valid MML access code.

1. You will need a Pearson account. If you have used any of the Pearson My Lab products before, you can use the same account you created the first time you used it.
2. You will need a Student Access Code which can be purchased from the Valencia campus Bookstore or online (credit card required) when you register for the course at <http://pearsonmylabandmastering.com/>.
3. You will need to register for our course in MyMathLab. Go to <http://mymathlab.com/> or <http://pearsonmylabandmastering.com/> and follow the steps to register. **Our course ID**

is: xie42125. Once you register, run the Installation Wizard to make sure you have all the appropriate software installed on your computer.

4. You will need access to Blackboard Learn. This is the primary program we will use for communication in the class. You will use your UNM NetID to log into Learn. You may access it directly via <http://learn.unm.edu>
5. You will need to use a *scientific* calculator for this course. You need not own a *graphing* calculator, any assignments that require the graphing of functions you can also do using free software on the internet.
6. You will also need administrative rights to download free software or plug-ins or add-ons on the computer you plan to use for this course. If you do not own a computer, and you are in the face-to-face course, be sure you schedule time to spend in the computer labs on campus to make sure all of the programs will work properly.

Other software requirements:

- Those needed to properly run MyMathLab. This includes the latest Javascripts and QuickTime player (both free downloads). Be sure to run the Installation Wizard in MML the first time you login to our course.
- Adobe Reader (a free download), preferably version 11.0 or better.
- To run MyMathLab I have had good luck with Google Chrome, but Mozilla Firefox and Safari also work. I am not sure how well these programs will work on Linux computers, so if you have a Linux operating system we will need to talk. Also, MyMathLab is now supposed to be fully compatible with tablets and mobile devices.
- To run Blackboard Learn and all of the programs embedded in it, you will need to use Mozilla Firefox. Learn is supposed to be fully compatible with tablets and mobile devices.
- **You will need high-speed internet and the ability to upload free software to access the online materials.**

Time for This Course: Plan right now to spend a minimum of *9 to 12 hours per week* for this class. If you are in the online section, this time cannot all be lumped on the weekend or in one day; you will need to spread out the time you allot to this course. There is no guarantee you will pass if you dedicate this amount of time, you still need to learn the material and use your time wisely, but it is not likely you will pass if you don't.

Course Grade

Your Course Grade will be determined in the following way:

- | | |
|--------------------------------|-----|
| • Homework Assignments | 20% |
| • Attendance and Participation | 10% |
| • Unit Quizzes | 20% |
| • Midterm Exam | 20% |
| • Final Exam | 30% |

You must score at least a 70% on the final exam to earn a passing grade in the course.

Depending on the grading option you have chosen, your final course letter grade will be determined as follows:

Letter Grade	Final Exam score AND Course Average
A+	70% or better AND 98% or better
A	70% or better AND 92% up to but not including 98%
A-	70% or better AND More than 89% but less than 92%
B+	70% or better AND 88% to 89%
B	70% or better AND 82% up to not including 88%
B-	70% or better AND More than 79% but less than 82%
C+	70% or better AND 78% to 79%
C	70% or better AND More than 69% but less than 78%
CR	70% or better AND More than 69%
D+	Less than 70% AND More than 69%
D	Any AND More than 60% but less than 69%
D-	Any AND 50% up to 60%
F	Any AND Less than 50%
NC	Any AND Less than or equal 69%

I grade: There are sometimes circumstances that will allow me to assign the I or Incomplete grade. In order to receive the I grade you need to be passing the class at three-fourths of the way into the summer session and have had a major circumstance occur that does not allow you to complete the work for the class. You may need to provide documentation. If you receive the I grade, you will also need to meet with me to determine how you will complete the course work to have the I grade removed. You have one year to complete the course, but do not wait that long. It is best if you make a plan to complete the work as soon as possible. You should not re-enroll for the course in order to have the I grade removed.

W grade: Also, if you withdraw from the course after the “census date” (after 5:00 on Feb. 3) you will be assigned the W grade. If the course is full, with a waiting list, I reserve the right to drop you if you miss the first two class meetings. If you drop before 5:00 on Feb. 3, the course will not show up on your transcript and you will be eligible for a 100% refund. I can also drop you upon specific request any time before grades open. Once the registrar opens Banner for entering final grades, I will no longer be able to drop you from the course.

Reasons I will drop you from the course:

- Student who has not begun working in MML by the end of the first week of class. You can have access to our course in MML for 14 days before you have to pay.
- Student who misses two consecutive class sessions during the first week of class.
- Student who misses 6 class sessions in total during this semester.

Homework: Your homework will come in two parts:

- **Guided Notes**, and
- **Computational Assignments**.

Guided Notes (each worth 10 Homework Points) – These questions come from the sections of the book you are supposed to read *before* completing the Computational Assignments. These assignments will be posted in Learn in the appropriate folder for each unit. ***Do not skip these assignments.***

Once you have the questions in front of you, you need to go to that section of your book. On the homepage in MML you will see a button in the left toolbar that says etext. Click on this button. Select view eText. This is where you may encounter a problem if you do not have the correct add-ons or apps installed. Check which section the Guided Notes questions are about, and then select the folder for the correct chapter. In the window that opens there will be a list of the sections for that chapter. Click on the correct section and it will take you to the eText.

You will need to complete the Guided Notes “by hand.” Once you have completed these pages you may either

- Bring them to class if you are in the F2F section.
- Drop them off for Jinxia Xie (be sure to say my first name) at the Academic Office at Valencia Campus,
- Scan them as PDF documents and then upload in MML or email. ***I would prefer if you send me one document per set of guided notes rather than a document for each page.*** If you want to send them in Learn be aware that you can only attach one document in a message in Learn. If you do not own a scanner, there are free apps you can load on your smartphone that will allow you to create a readable PDF document. Ask me about this.

Computational Assignments (each worth 10 Homework Points) – These questions are posted in MML. Here are instructions for accessing these assignments.

1. On the tool bar in MML (left side of window on home page), click on Assignments.
2. In the window that opens, at the top you will see buttons labeled “Show All”, “Homework”, “Quizzes & Tests”, and “Chapter.” The Show All button will likely be highlighted.
3. You will see a list of the computational assignments and quizzes with their due dates. Click on the assignment you want to complete. If the hyperlink is no longer active this means you are attempting to access it after deadline.

You are automatically allowed to work past deadline on Computational Assignments, you won’t need to ask for extensions, **but** do not get behind. ***The quiz for that unit will not open until you have scored at least a 60% on the Computational Assignment.***

Please use the Ask My Instructor button if you need help!

Participation: Participation is required for this course. In the F2F class, attending class and complete all assignments on time will ensure that you are able to earn participation points.

Unit quizzes: I have divided the material in the book into 12 units. These divisions include usually two or three sections of the text but may include material from only one section or as many as four. After you complete the homework for the unit (both the guided notes and the computational assignment) then take the quiz on that material. You are allowed 3 attempts on these quizzes. I consider mastery a score of at least 75 to 80%. You should strive to achieve this score. If not, study the material again and retake the quiz. ***The quiz will not open for you until you have scored at least a 60% on the Computational Assignment.*** Also, each quiz will require a password to open. If you do not know the password, it is likely you have not completed all of the assignments you need to for that unit. Go back into Learn and find out what you did not yet complete. **Each unit quiz completed is worth a maximum of 10 quiz/test points.**

Sometimes MML will count a problem incorrect because you do not enter the answer in the form the program wants or for some other reason not immediately apparent. I will check your progress approximately every week and will review your unit quizzes to see if you can receive some points back. If you want to email me any work or explanation of why you missed a question, this can result in more partial credit.

DO NOT consider any of the grades posted in MyMathLab as representing your actual grade. After the first project I will post and update your grades regularly in Blackboard Learn.

Midterm and Final Exams: The midterm and final exam are hand-written exams. You are allowed to have one 3*5 note card for needed formulas only. The note card will be checked by the instructor before exams. The midterm counts 20% of your course grade and the final counts 30% of your course grade. Also, you must score at least a 70% on the final exam to pass the course.

Working Ahead and Late Assignments: It is conceivable that you may be able to work ahead on your assignments. If I find you jumping around too much or not taking the time to complete the Guided Notes before attempting the work in MML, I will change how these are assigned to make you slow down and learn the material rather than just try to bash tests to get through.

If, on the other hand, you find yourself falling behind, contact me as soon as possible. I will allow you to complete some assignments later than the posted deadline, but not if you haven't contacted me and made arrangements. See extension policy below. Late assignments may be docked at least 10% of the grade.

Extensions on Assignments: If events in your life or trouble with technology require you to miss a deadline for a unit quiz I will grant up to four extensions on quizzes; *this means four quizzes, not four requests*. You will already be able to work past deadline on the Computational Assignments, so you need not request an extension for these. Guided Notes are not considered late as long as I receive them about the time the quiz for that unit is due. Participation Activities associated with a unit must be completed in the time window during which the unit is open in Learn. There are posted due dates for these assignments, which you should meet. If you turn them in early, that is excellent! However, they are designed to go with the unit in which they are posted so don't get ahead of the other assignments. If you turn in a project or activity later than the posted due date, I reserve the right to dock your score at least 10%.

All written assignments – guided notes, unit activities, exams – will be graded within a couple of days of when I receive them, definitely within a week of receipt.

Support: If you are struggling in this course, do not be afraid to ask for help!

- **Ask My Instructor:** Do not be afraid to click on the Ask My Instructor button in MyMathLab. This button is available in the computational assignments and in the quizzes.
- **Office Hours:** I have office hours Monday through Wednesday in various places. Feel free to come by or log in for online office hours, or make an appointment to get help.
- **Form study groups:** You may work together with other members of our class. However, for your Guided Notes and other work meant to be done individually are too much alike, all parties involved will lose points. *For example, if I receive Guided Note submissions from two or more people that are identical, all students involved will receive a zero for that assignment.*

- **Free Tutoring:** The Learning Center has free tutoring and open labs. Call 505-925-8907 for more information. There is also tutoring available in the STEM Center. Call 505-925-8515 for more information. CAPS on main campus also provides tutoring for which I can get documentation.
- **Other Tutoring:** If you do not live in the Albuquerque or Valencia County area you should explore other options for tutoring. If you want to earn participation points for tutoring, however, you will need to document this. There are generic online tutoring sites available on the Internet but be aware that you often get what you pay for. In other words, if it is free, it may not be that great and you will not be able to document tutoring received. Also, if you have a friend or relative help you, this may be great but there will not be an easy way to document the tutoring for participation points.
- **Online Resources:** In Blackboard Learn I will post various resources for you. These will include a link to Kahn Academy, a folder with SmartPen recordings that other professors have created and, possibly, a folder with mini-lectures recorded using MediaSite or some other software. Be sure to check out these resources and open the sample recording to make sure they work properly.

Other Important Information:

Equal Access: 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 your accommodations are provided in a timely manner. It is up to you to obtain documentation of a disability. If you are a Valencia campus student, contact Equal Access Services at Valencia Campus, Jeanne Lujan at (505)925-8910 and <http://www.unm.edu/~vcadvise/equalaccess.htm> . If you are a main campus student you can receive documentation from the main campus Equal Access office <http://www.unm.edu/~vcadvise/equalaccessfaq's.htm> . I will not guarantee accommodation without the appropriate documentation.

Plagiarism and Not Doing Your Own Work: It's a bad idea to plagiarize or to have other people do your work for you. UNM has specific policies concerning academic dishonesty: <https://policy.unm.edu/regents-policies/section-4/4-8.html> There are various tools now developed to help determine if the person enrolled in an online course is actually the person completing the work. I may be implementing some of these tools as the semester progresses, especially if there is an obvious need to do so.

Don't Cheat! Cheating, in my opinion, is any behavior that short circuits *your* learning. This can range from mindlessly mimicking the worked out examples in the MML computational assignments, to simply copying someone else's solution, to paying someone to complete the course for you. I won't always be able to detect when you have cheated, at least not at the time you cheat, but the chances of you passing the midterm and final exams goes down considerably the more you cheat. Save yourself some time and money and put in the effort now to learn the material for the course.

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>

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;
 - 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.

Course Outline

Week	Date	Day	Assignments Due	Topics	Sections
1	1/16	Mon.	Martin Luther King Jr. Day, no class		
	1/18	Wed.	Orientation, Register in MML	Introduction, Review	R.1, R.2, R.4
	You have until 11:59 PM on 1/21 for this class to complete the orientation assignments or you will be dropped.				
2	1/23	Mon.	Log into UNMLearn	Other Getting Started Assignments	R.5, R.7
	1/25	Wed.		Solving Linear Eqs. And Ineqs.	1.1, 1.5
	1/28	Sat.	Ch. R test		
	1/27 Last day to ADD sections and CHANGE credit hours on LoboWEB.				
3	1/30	Mon.	Computational Assignment due	Applications of Linear Eqs.	1.7 and Review
	2/1	Wed.	Unit 1 Activity(ies) due	Graphs of Lines, Properties of Linear Functions	2.3, 4.1,
	2/4	Sat.	Quiz Unit 1		
	2/3 Last day to DROP without "W" grade and 100% tuition refund on LoboWeb.				
4	2/6	Mon.	Computational Assignment due	Systems of Linear Eqs.	8.1 and Review
	2/8	Wed.	Unit 2 Activity(ies) due	Solving Quadratic Eqs.,	R.3, R.5 R.8
	2/11	Sat.	Quiz Unit 2		
5	2/13	Mon.	Computational Assignment due	Radical Expressions and Eqs.	1.2, 1.4
	2/15	Wed.	Unit 3 Activity(ies) due	Distance Formula, Pythagorean Theorem, Review Factoring	2.1 and review
	2/18	Sat.	Quiz Unit 3		
6	2/20	Mon.	Computational Assignment due	Properties of Graphs,	2.2
	2/22	Wed.	Unit 4 Activity(ies) due	Functions, Graphs of Functions	3.1, 3.2 and review
	2/25	Sat.	Quiz Unit 4		
7	2/27	Mon.	Computational Assignment due	Properties of Functions,	3.3
	3/1	Wed.	Unit 5 Activity(ies) due	Ops. on Functions, PW defined Functions, Ave. Rate of Change	3.4 and review
	3/4	Sat.	Quiz Unit 5; Review for Midterm Exam		

Week	Date	Day	Assignments Due	Topics	Sections
8	3/6	Mon.	Computational Assignment due	Transformations of Functions, Composition of Functions	3.5, 6.1
	3/8	Wed.	Unit 6 Activity(ies) due	Midterm Exam	
	3/11	Sat.	Quiz Unit 6		
9	3/12-3/19 Spring Break, no class				
10	3/20	Mon.	Computational Assignment due	Domains	Review
	3/22	Wed.	Unit 7 Activity(ies) due	One-to-One Functions, Inverses, Exponential Functions	6.2, 6.3 and review
	3/25	Sat.	Quiz Unit 7		
11	3/27	Mon.	Computational Assignment due	Logarithmic Functions,	6.4
	3/29	Wed.	Unit 8 Activity(ies) due	Properties of Logs	6.5 and review
	4/1	Sat.	Quiz Unit 8		
12	4/3	Mon.	Computational Assignment due	Solving Equations,	6.6
	4/5	Wed.	Unit 9 Activity(ies) due	Applications with Exponentials and Logs	6.7, 6.8 and review
	4/8	Sat.	Quiz Unit 9		
13	4/10	Mon.	Computational Assignment due	Applications of Quadratics	4.3
	4/12	Wed.	Unit 10 Activity(ies) due	Circles	2.4 and review
	4/14 Last day to DROP without Dean's Permission on LoboWEB.				
	4/15	Sat.	Quiz Unit 10		
14	4/17	Mon.	Computational Assignment due	Rational Expressions, Equations, and Functions	R.4, R.7, 5.2
	4/19	Wed.	Unit 11 Activity(ies) due	Dividing Polynomials	Review
	4/22	Sat.	Quiz Unit 11		
15	4/24	Mon.	Computational Assignment due	Polynomial Functions	5.1
	4/26	Wed.	Unit 12 Activity(ies) due	Polynomial Functions	Review
	4/29	Sat.	Quiz Unit 12		
16	5/1	Mon.	Review for Final Exam		
	5/3	Wed.			
5/5 Last day to DROP with Dean's Permission with form.					
17	5/8, Monday, Final Exam, 3:00 pm – 5:00 pm, Room A127				