MATH 121   College Algebra   Section 504
Spring 2016   CRN 46917

Instructor: Dr. Eva Rivera Lebrón **Office:** Arts & Sciences Bldg. Room 123, Valencia Campus

Office Hours:
   Face-to-Face/Online: Tuesday and Thursday 1:30 to 3:00 PM,
   STEM Center: Monday and Wednesday 9:00 to 10:00 AM, 1:30 to 2:30 PM
   Other hours by appointment

Phone: 925-8644 (my office), 925-8600 (Academic office) **email:** eriveral@unm.edu or send a message in Blackboard Learn (preferred method of communication). I will check email Monday through Friday afternoon unless I am out of town. Expect a response within 24 hours to email messages sent Monday morning through Thursday evening. If you send me a message on Friday through Sunday I may not see it until Monday.

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.

Instructional Paradigm (How I Teach): Since this is an online course I expect *you* to read your book and review the examples presented in each section. Your ability to do this is essential in an online course. Below is a sequence I would like you to follow in completing your assignments. The reason for this sequence is to best help you learn the material. For each unit:

1. Read the assigned sections in the etext and complete the Guided Notes. Guided Notes are posted Blackboard Learn with instructions about how to print them and use them.
2. Complete the Computational Assignment in MyMathLab.
3. Complete the Word Problem of the Week, if there is one. These are posted in Blackboard Learn. They provide further practice in mathematical thinking and will give you participation points.
4. Complete the Project that goes with the unit if there is one. Projects are posted in Blackboard Learn and are part of your course grade.
5. Complete the Unit quiz.

The assignments, helps, and other information for each unit is posted in Learn, so be sure to log in to Learn regularly to see what ALL of the assignments are for each unit. Units will be available either from the beginning of the semester, or for two weeks before assignments are due, until two weeks after assignments are due, or the end of the semester. If you do not complete the Word Problem of the Week or the project, or any other assignments for a unit during the time the unit is open in Learn, it will be too late to complete those assignments. See below about late work.

The Guided Notes guide you through the reading of the text and can help replace what you are missing by not having a lecture to attend. Though these assignments may seem tedious at times, by your writing down definitions and working through examples, you are learning.   As always, if you still don't understand the concept email me! As time for homework gets tight, many students feel that this is the assignment to skip. Bad idea! Do not depend on just memorizing sample problems to help you understand the material.

The Computational Assignments provide you with practice in solving the types of problems from the unit. Here you will have available all of the learning aids provided by MyMathLab. Be careful, however, to not become so dependent on the aids that you don't actually learn the material. Also be sure to review what you have missed before you take your quiz, this can alleviate entry errors. Also, do not be shy about using the Ask My Instructor button. I welcome questions!

The Quizzes provide you a chance to test your knowledge.   You are allowed three tries on quizzes. If something is not clear, go back to the Computational Assignment to see what you didn't understand or you can send me a message to ask me about a problem on the quiz. You will learn best by going back and reviewing what you have done to find out where your mistakes are and to correct those mistakes. In Blackboard Learn I have posted instructions about how to review a quiz in MyMathLab. When you review your quiz, you will be able to print the problems you missed so that you can take them with you to tutoring or to come see me for help. Use all the tools available to you to **learn** the material.

Text and Tools - Required

The text for this course is **College Algebra, Tenth Edition, by Sullivan**. The bookstore should have both 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 e-text, be sure you buy one with a valid MML access code.

1. You will need a MML account. If you have used MML 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:
    COURSE ID: rivera23957
    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 to know how to enter our Adobe Connect room, https://meeting.unm.edu/ewclarkonline/. This is where we will have the beginning of semester orientation and where all online office hours will occur. Enter the meeting room as a guest, do not try to log in.

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 or mobile devices. If you are coming to online office hours, you will need to use Internet Explorer or Microsoft Edge.

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. 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 (computational and guided notebook)	20%
• Participation	10%
☐Unit Quizzes in MML	20%
• Projects	10%
Midterm Exam	10%
• Departmental Final	30%

Check Blackboard Learn regularly for postings of assignment due dates. If there is a question about when something is due, the date on the calendar in Blackboard Learn will be considered the official due date.

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:

You will receive an **A** in the course
- if you have a weighted average of 90% or better and score at least a 70% on the final exam.

You will receive a **B** in the course
- if you have a weighted average of 80% to 89% and score at least a 70% on the final exam.

You will receive a **C** in the course
- if you have a weighted average of 70% to 79% and score at least a 70% on the final exam.

You will receive a **D** in the course
- if you have a weighted average of 70% or greater but score less than a 70% on the final exam.

or
- if you have a weighted average of 50% to 69%.

You will receive an **F** in the course
- if you have a weighted average less than 50%.

You will receive a **CR** in the course
- if you have a weighted average of at least 70% and score at least a 70% on the final exam.

You will receive a **NC** in the course

- if you have a weighted average less than 70% *or* score less than a 70% on the final exam.

A plus or minus could be added to a grade if your weighted average is near one of the cut-off scores. I do not as a rule assign a grade of C– since a passing score for this course is **C or better**, so C– would *not* be a passing grade.

Homework: Your homework will come in two parts:
- **Guided Notes**, and
- **Computational Assignments**.

Guided Notes – 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. *If you skip these assignments at the beginning of the semester I will set it up so that you cannot access the Quiz for that unit until you have submitted the Guided Notes.*

Once you have the questions in front of you, you need to go to that section of your book. For the etext, on the tool bar 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 GN questions are about then select the folder for the correct chapter. In the window that opens 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
- drop them off for Dr. Eva Rivera (be sure to say my first name) at the Academic Office at Valencia Campus,
- scan them as PDF documents and then upload in Blackboard Learn. *I would prefer if you send me one document per set of guided notes rather than a document for each page*. Please be aware that you can only attach one document in a message in Learn.
- fax them to me. Fax number is 505-925-8697. Be sure to put your name on each page and that the fax is for Dr. Eva Rivera.

Computational Assignments – These questions are posted in MML. Here are instructions for how to access 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, much as attendance is required in a face-to-face course. In the folder for each unit in Learn you will find a list of ways you can earn Participation Points (PP). This list will include:

- Attend the orientation at the beginning of the semester or watch the recording, fill out the course agreement, sign it and date, and then send it to me (required; worth 10 PP). ***You will be dropped from the course if you do not submit the course agreement***.
- Complete your introduction in Learn Discussion forums (worth 5 PP).
- Complete tech survey in SurveyMonkey (worth 10 PP) https://www.surveymonkey.com/r/Q96W52Q
- Complete Word Problem of the Week posted in learn (points vary, usually 10 PP each).
- Post to other discussions in Blackboard Learn (3 to 5 PP each).
- Find and answer syllabus questions in whole-class emails sent in Learn. (worth 3 PP each).
- Ask me questions! You will receive ¼ of a point for each Ask My Instructor question you email me. Also, any other questions you email me or message me about can earn participation points.
- Document tutoring you have received (email me to find out how to document tutoring). 3 to 5 PP for each hour documented.
- Attend office hours or review sessions, either in person or online. 5 PP for each visit or hour of the review session.
- Others as I am able to create them.

You will need to accumulate 100 Participation Points by the end of the semester.

As for "attendance," if you miss three (3) *consecutive* assignment due dates, you may be dropped from the course. **If by the end of the second week of class if you show no or little progress, have not purchased your book, and have not registered in MyMathLab or made other arrangements for completing the assignments you *will* be dropped. If you do not attend the orientation or watch the recording and submit documentation of this, you will be dropped.**

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 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*. 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.

Projects: You will be assigned between two to four projects to complete during the semester, each worth 100 points. For these projects you may work with a partner or in a group of no more than four people. If I receive identical project submissions but no documentation for collaboration, you will not receive points for the project. ***These projects will emphasize concepts that the book does not cover well and are a required part of the learning objectives, so they are required! Don't ignore them.***

Midterm and Final Exams: The midterm exam and the departmental final exam must be taken in person. If you cannot come to Valencia Campus to take these exams, you will need to make arrangements to have the exam proctored. Talk to me as soon as possible about how to find a proctor. The midterm counts 10% 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. If you consistently turn in Guided Notes after the quiz due date, I will lock your access to the quizzes until I am sure you are completing these assignments as designed. Projects and Word Problems of the Week 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 word problem activity later than the posted due date, I reserve the right to dock your score at least 10%.

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!
- Office Hours:. Feel free to come by 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 and turned in for a grade, you will need to write what *you* know, not regurgitate a consensus of the group. ***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 and I will be spending one hour a week there. Call 505-925-8553 for more information.
- 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 may 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, and, possibly, a folder with lectures I gave in a previous semester for a face-to-face version of this course. 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 by contacting Equal Access Services at Valencia Campus, Jeanne Lujan at (505)925-8910 and here is their web page: http://www.unm.edu/~vcadvise/equalaccess.htm . I will not guarantee accommodation without the appropriate documentation.

Netiquette and Behavior Expectations: One of the overriding principles in online conversations is to "craft your responses effectively." It is sometimes difficult to remember that there are real people reading posted messages. This is especially true of online communication where others do not have the opportunity to see body language or hear tone of voice; therefore, they have a greater possibility of misunderstanding what is meant.

Please, follow these guidelines in all of your online responses and discussion postings.
- Honor everyone's right to an opinion.
- Respect the right of each person to disagree with others.

- Respond honestly but thoughtfully and respectfully; use language which others will not consider foul or abusive. You may also use emoticons to convey a lighter tone.
- Respect your own privacy and the privacy of others by not revealing information which you deem private and which you feel might embarrass you or others
- Be prepared to clarify statements which might be misunderstood or misinterpreted by others.

A Special Note about Anger
- Do not send messages that you have written when you are angry, even anonymous ones. In the online world, angry messages are known as "flaming" and are considered bad behavior. Venting and flaming are two different things. It is possible to vent without sounding angry. Stick to the facts of what is causing you frustration.
- Do not send messages that are written all in upper case; this is the visual equivalent of SHOUTING. It is considered aggressive and is considered bad behavior. If you ever feel like shouting a message, take a deep breath and wait until you have calmed down before responding. Then, respond in a calm and factual manner.

In the discussion threads in Blackboard Learn I will provide a thread for venting. These postings will be anonymous and will allow you to vent any frustration you are feeling about MML, the course, and math in general. Sometimes I may answer these posts if there is an issue that needs addressing.

Plagiarism and Not Doing Your Own Work

It's a bad idea to plagiarize or to have other people do your work for you. Refer to the UNMValencia Catalog for the campus policy on "Dishonesty in Academic Matters." 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.

Course Goal #1: Communication

Addresses UNM core area 2/HED Area II: Mathematics (Algebra Competencies)
> SLO 1: Students will use correct mathematical notation and terminology and will read and appropriately interpret various representations of information.
> SLO 2: Students will verbalize the steps needed to solve a problem.

SLO 3: Students will use various course technologies to connect with each other and the instructor, and to access course materials.

Course Goal #2: Solve various kinds of equations

Addresses UNM core area 2/HED Area II: Mathematics (Algebra Competencies) Competency 2

SLO 1: Students will solve linear equations and systems of two and three linear equations.

SLO 2: Students will solve polynomial equations including quadratics (polynomials of degree 2) and factorable polynomials of higher degree.

SLO 3: Students will solve rational equations by identifying the least common multiple needed to simplify the equation, and by identifying extraneous solutions to the original equation.

SLO 4: Students will solve radical equations using inverse properties of exponents.

SLO 5: Students will solve exponential and logarithmic equations using the properties of exponents and logarithms.

SLO 6: Students will identify the standard and general form for the equation of a circle, will convert between the two forms using completing the square, and will identify the center and radius for the circle.

Course Goal #3: Working with functions

Addresses UNM core area 2/HED Area II: Mathematics (Algebra Competencies) Competency 3

SLO 1: Students will identify the domain and range for a given function and find the function value given a domain value as well as find the domain value given a specific function value.

SLO 2: Students will add, subtract, multiply and divide given functions, will create a composite function given two or more functions, and will show the decomposition of a given function into its basic parts.

SLO 3: Students will identify and categorize functions according to the general properties of families of functions. For example, Students will recognize whether a given function is from the polynomial, rational, radical, exponential or logarithmic function family.

Course Goal #4: Working with graphs

Addresses UNM core area 2/HED Area II: Mathematics (Algebra Competencies) Competency 1

SLO 1: Students will determine if a given graph represents a function.

SLO 2: Students will graph a circle given either form of the equation of a circle (standard or general).

SLO 3: Students will graph a given function by identifying the following features for the function
- The domain and range
- The x- and y-intercepts, if they exist
- End behavior

- Asymptotes if they exist
- Intervals where the function is increasing or decreasing
- Local maxima and minima

SLO 4: Students will determine the properties and behavior of a function given only the function's graph. In particular, the domain and range, intercepts, end behavior, asymptotes and specific values of the function.

Course Goal #5: Modeling and solving applied problems

Addresses UNM core area 2/HED Area II: Mathematics (Algebra Competencies)
Competency 4

SLO 1: Students will identify slope as a rate of change within the context of a given word problem, and will express in their own words what the slope represents for that specific situation.

SLO 2: Students will construct appropriate equations to model a situation presented to them through a word problem. They will extract information from a word problem in such a way that allows them to identify the general behavior of the data through graphing. SLO 3: Students will find maximum or minimum values for word problems which are modeled by quadratic functions.

Ultimate SLO: Students will identify the family of functions that is illustrated within an applied problem, either by representing the situation with a graph or using their understanding of how certain phenomena behave to describe the function. For example, constant rate of change is a property of linear functions, free-falling objects are modeled by quadratic functions, and compound interest grows exponentially.