Course Number: Math 1220 College Algebra
Dual Credit

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3 Credit hours

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COURSE DESCRIPTION

This course is a study of equations, functions, and graphs, reviewing linear and quadratic functions and concentrating on polynomial, rational, exponential, and logarithmic functions. Emphasizes algebraic problem-solving skills and graphical representation of functions.
(3 Credit Hours).

Course Goals:

This course will study functions and graphs, polynomial, rational, exponential, and logarithmic functions.

Student Learning Outcomes/Course Objectives

The following are the objectives for the course. Students will build on their knowledge of polynomial, rational, absolute value, radical, exponential, and logarithm functions in the following contexts:

Upon successful completion of the course, students will be able to:

1. Use function notation; perform function arithmetic, including composition; find inverse functions.
2. Identify functions and their transformations given in algebraic, graphical, numerical, and verbal representations, and explain these representations' connections.
3. Graph and interpret key features of functions, e.g., intercepts, leading term, end behavior, asymptotes, domain, and range.
4. Solve equations algebraically to answer questions about graphs, and use graphs to estimate solutions to equations.
5. Solve contextual problems by identifying the appropriate type of function given the context and creating a formula based on the information.
6. Communicate mathematical information using proper notation and verbal explanations.

Prerequisites and Co-requisites

Math 1215XYZ or ACT Math o!: 22 or SAT Math Section o!: 540 or ACCUPLACER Next-Generation Advanced Algebra and Functions: 239-248.
Note: College Algebra builds on concepts learned in Intermediate Algebra. If it has been a while since you last took a mathematics class, you will probably need to review to succeed in College Algebra. Also, Mathematics or Statistics coursework dating back more than five years cannot automatically be counted as a prerequisite fulfillment. Students with coursework dating back more than five years should take the placement exam offered through the University of New Mexico Testing Center to determine which Mathematics or Statistics courses to register for based on their skill level.

TECHNICAL SKILLS

To participate and succeed in this class, you will need to be able to perform the following basic technical tasks:

- Use UNM Learn (help documentation located in the "How to Use Learn" link on the left course menu and at Online Student Documentation). Also, UNM-Valencia provides a Blackboard Learn Jumpstart self-learning module to give you practice with the most commonly used tools in UNM Learn. Ask your instructor if you do not see the UNM-Valencia Blackboard Learn Jumpstart in your list of classes in UNM Learn.
- Use email – including attaching files, opening files, downloading attachments
- Copy and paste within applications including Microsoft Office
- Open a hyperlink (click on a hyperlink to access a website or online resource)
- Use Microsoft Office applications
    - Create, download, update, save and upload MS Word documents
    - Download, annotate, save and upload PDF files
    - Access MS Teams
- Use the in-course web conferencing tool (Collaborate Web Conferencing software in UNM Learn) or use Zoom or another web conferencing tool
- Download and install an application or plugin – required for participating in web conferencing sessions

TECHNICAL REQUIREMENTS

Computer

- A high-speed Internet connection is highly recommended.
- Supported browsers include: Detailed Supported Browsers and Operating Systems
- Any computer capable of running a recently updated web browser should be sufficient to access your online course. However, bear in mind that processor speed, amount of RAM, and Internet connection speed can *significantly* affect performance. ***Some programs that use mathematics will not work well on mobile devices such as smartphones or tablets.***
- Microsoft Office products are available free for all UNM students (more information on the UNM IT Software Distribution and Downloads page)
- Please update your contact information in Loboweb: MyUNM Login. When you log into MyUNM, Enter LoboWeb. Click on the Personal Information link to make sure your contact information is up to date.
- Laptops may be available for checkout for the Fall semester from the UNM-Valencia Library. Contact the librarians for more information.

Web Conferencing and Tutoring Hours

Web conferencing via ZOOM will be used for tutoring hours in this course during the following times and dates: M/T/W/Th 9 am – 11:30 am.
For the online sessions, you will need:

- A USB headset with a microphone. Headsets are widely available at stores that sell electronics, at the UNM Bookstore, or online.
- A high-speed internet connection is highly recommended for these sessions. A wireless Internet connection may be used if successfully tested for audio quality before web conferencing.

- You should also dress as you would when attending an in-person class, even if you do not turn on your video camera.

Technical Support

- For UNM Learn Technical Support: (505) 277-0857 (24/7) or use the "Create a Tech Support Ticket" link in your course.
- For UNM-Valencia IT Support: (505)925-8911
- For UNM Web Conference Technical Help: (505) 277-0857

TEXTBOOK AND SUPPLEMENTAL MATERIALS

Required Textbooks:

"College Algebra," Openstax, by Jay Abramson.

COURSEWORK AND PARTICIPATION

Instructor Response Time

I routinely check the course for postings or emails, Monday (8 am) – Friday (noon), and sometimes on the weekend. You can anticipate a 24 to 48-hour response from me, Monday – Thursday. I will try and respond to all weekend (Friday afternoon to Sunday) emails and postings by noon on Monday or earlier.

Procedures for Completing Coursework

- Links to the section videos will be posted on MS Teams. You are required to watch all the relevant videos.
- Homework is assigned every week and is due the following week or based on the course outline. **A late penalty of 20% will be added to all late homework.**
- Submit homework to the appropriate link on MS Teams.
- If you have difficulty using a tool to complete work, use the "Create a Tech Support Ticket" link in the Course Menu immediately and notify your instructor as well.

Expectations for Attendance/Participation

- Attendance is 10% of your overall grade. You will start the course with full attendance points. To maintain those points, you must attend class. Every time you miss a class, your attendance grade is lowered by 0.5%.

Written Homework: Each section has written homework and must be completed no later than as indicated on the outline. The purpose of the written homework is to determine if you understand the concepts correctly. I will not grade illegible homework. Your score on each will be out of **25 points.** Written homework is worth 40% of your overall course grade. **A late penalty of 20% is added to all late homework.**

Exams: There is a midterm exam during the semester. You will have a formula sheet for the exam, and you can use a calculator. You can NOT use your phone for a calculator. The exam is worth 20% of the overall course grade.

Final Exam: The final is a departmental exam that will test you overall, or nearly all, of the learning objectives for this course. You will have a formula sheet for the final, and you can use a calculator. You are allowed to take the final ***only once***. The final exam will be 30% of your overall course grade.

Netiquette

One of the overriding principles in online conversations is to "craft your responses effectively." It is sometimes difficult to remember that real people are reading posted messages. It is especially true of online communication where others do not have the opportunity to see body language or hear the tone of voice; therefore, misunderstandings are more likely.

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 that others will not consider foul or abusive. You may also use emoticons to convey a lighter tone.
- Respect your privacy and the privacy of others by not revealing information that you deem private and which you feel might embarrass you or others
- Be prepared to clarify statements that 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 becoming "ugly." Stick to the facts of what is causing you frustration.
- Do not send messages written in the upper case; this is the visual equivalent of SHOUTING. It is considered aggressive and is regarded as 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 calmly and factually.
- *Netiquette document*

NOTES TO STUDENTS ABOUT PARTICIPATION IN A COURSE USING UNM LEARN:

Tracking Course Activity

UNM Learn automatically records all students' activities, including your first and last access to the course, the pages you have accessed, the number of discussion messages you have read and sent, web conferencing, discussion text, and posted discussion topics. This data can be accessed by the instructor to evaluate class participation and to identify students having difficulty

Submitting Assignments
When you submit an assignment via UNM Learn, you will receive an email receipt of your submission from *do-not-reply@learn.unm.edu*. Save this email as confirmation of your submission.

GRADING PROCEDURES

- ***Assessments will be graded as soon as possible and posted in MS Teams.***

COURSE AVERAGES:

Attendance/Class Participation	10%
Written Homework	40%
MidTerm Exam	20%
Cumulative Final Exam*	30%
Total	**100%**

Grading Scale

Final grades are based on the sum of all possible course points, as noted above. Percentage of available points

Letter Grade	Weighted Average
A+	**[98,100]**
A	**[92,98)**
A-	**[90,92)**
B+	**[88,90)**
B	**[82,88)**
B-	**[80,82)**
C+	**[78,80)**
C	**[72,78)**
C-	**[70,72)**
D+	**[68,70)**
D	**[62,68)**
D-	**[60,62)**
F	**[0,60)**

UNM POLICIES

Equal Opportunity and Non-Discrimination

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). 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.
Read more about campus policy regarding sexual misconduct.

Copyright Issues

All materials in this course fall under copyright laws and should not be downloaded, distributed, or used by students for any purpose outside this course.

The UNM Copyright Guide has additional helpful information on this topic.

Accessibility and Accommodations

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides reasonable accommodations for their disabilities. If you have a disability requiring an accommodation, please contact:

- UNM-Valencia Student Services if you are a Valencia campus student. The phone number is 505-925-8560
- UNM Accessibility Resource Center in 2021 Mesa Vista Hall if you are the main campus student. The phone number is 505-277-3506.

Information about your disability is confidential, and your instructor cannot refer you for accommodations. Be aware that you will need to provide documentation. If you need assistance in obtaining documentation, the offices above can assist you.

Accessibility Statements

Blackboard's Accessibility statement
Microsoft's Accessibility statement
Include links to accessibility statements for all other technologies included in the course.

Academic Integrity

You should be familiar with UNM's Policy on Academic Dishonesty and the Student Code of Conduct, which outlines academic misconduct defined as plagiarism, cheating, fabrication, or facilitating any such act.

Drop Policy:

UNM Policies: This course falls under all UNM policies for the last day to drop courses, etc. Please see or the UNM Course Catalog for information on UNM services and policies. Please see the UNM academic calendar for course dates, the last day to drop courses without penalty, and financial disenroll dates.

UNM RESOURCES

- **UNM Valencia Campus Tutoring Services**
- **UNM Main Campus CAPS Tutoring Services**
- **UNM-Valencia Library**
- **UNM Libraries**
- **"Life" Resources available to UNM-Valencia Students**
- **Student Health & Counseling (SHAC) Online Services**

FOR MILITARY-CONNECTED STUDENTS

There are resources on campus designed to help you succeed. You can approach any faculty or staff for help with any issues you may encounter. Many faculty and staff have completed the GREEN ZONE training to learn about the unique challenges facing military-connected students. If you feel that you need help beyond what faculty or staff can give you, please reach out to the Veterans Resource Center on the main campus at 505-277-3181 or by email at vrc@unm.edu. The Veterans Coordinator at UNM-Valencia is in the Student Services Office at 505-925-8560.

SEMESTER DEADLINES AND COURSE OUTLINE

Spring 2021 – 16-week classes (deadlines will be different for first and second 8-week classes)

- Monday, January 18: First day of class, classes available in Blackboard Learn
- Friday, January 29, by 5:00 pm: Last day to add a class or change credit hours or grade mode in LoboWEB.
- Friday, February 5: Last day to drop without "W" grade and with 100% refund on LoboWEB
- Monday, January 18: Martin Luther King Jr. Day, no classes.
- March 14-21: SPRING BREAK
- Friday, April 16: Last day to drop *without* Dean's permission on LoboWEB. Will receive a "W" grade and will be responsible for tuition for the course.
- Friday, May 7: Last day to add sections or change credit hours with form, last day to drop *with* Dean's permission. Will receive a "W" grade and will be responsible for tuition for the course.
- May 5-15: Finals week. All final exams are given remotely.

Week	Dates	Sections / Topics	Assignments
1	1/18 - 1/22	2.1: The Rectangular Coordinate System and Graphs 2.2: Linear Equations in One Variable	
2	1/25 – 1/29	2.3: Models and Applications 2.4: Complex Numbers	Homework #1 due
	1/29	**The last day to add a course (5 pm)**	
3	2/1 – 2/5	2.5: Quadratic Equations 2.6: Other Types of Equations	Homework #2 due
	2/5 F	**Last day to drop a course without a grade (5 pm)**	
4	2/8 – 2/12	2.7: Linear Inequalities and Absolute Value Inequalities 3.1: Functions and Function Notation	Homework #3 due
5	2/15 – 2/19	3.2: Domain and Range 3.3: Rates of Change and Behavior of Graphs	Homework #4 due
6	2/22 – 2/26	3.4: Composition of Functions 3.5: Transformation of Functions	Homework #5 due
7	3/1 – 3/5	3.6: Absolute Value Functions 3.7: Inverse Functions	Homework #6 due
8	3/8 – 3/12	***Review*** **Midterm Exam**	Homework #7 due
9	3/15 – 3/19	**Spring Break**	
10	3/22 – 3/26	4.1: Linear Functions 4.2: Modeling with Linear Functions	
11	3/29 – 4/2	5.1: Quadratic Functions 5.2: Power Functions and Polynomial Functions	Homework #8 due
12	4/5 – 4/9	5.3: Graphs of Polynomial Functions 6.1: Exponential Functions	Homework #9 due
13	4/12 – 4/16	6.2: Graphs of Exponential Functions 6.3: Logarithmic Functions	Homework #10 due
	4/16 F	**Last day to drop without Dean's Permission (5 pm)**	
14	4/19 – 4/23	6.4: Graphs of Logarithmic Functions 6.5: Logarithmic Properties	Homework #11 due
15	4/26 – 4/30	6.6: Exponential and Logarithmic Equations 7.1: Systems of Linear Equations: Two Variables	Homework #12 due
16	5/3 – 5/7	***Review***	Homework #13 due
	5/7 F	**Last day to drop with Dean's permission/change grade mode with form (5 pm)**	
16	5/10 - 5/14	**Final Exam Week**	