

Course information, video lessons, and assignments can be found on Canvas.unm.edu.

The course format is simple! You are responsible for the 4 items below:

1. You will submit written worksheets about once per week.

You need to print out these assignments posted on Canvas.unm.edu and fill them in.

Once you finish each packet, create a pdf file of your work using an app like AdobeScan/Camscanner or a scanner. Upload your completed written assignments on Canvas.unm.edu before their due dates.

These must be organized and labeled, all work and steps must be shown, and must be presented consecutively, clearly, and legibly. I will be grading the written work for the correct answer, all steps, and for neatness and legibility.

Due dates are shown on Canvas.unm.edu

2. You will take a midterm and a cumulative final exam. You will need to come to UNM-Valencia Campus (280 La Entrada Rd, Los Lunas, NM 87031) to take these exams in person. You may use only a scientific (non-graphing) calculator. Bring your own.

Midterm Exam Tuesday, March 11th, in-person at UNM-Valencia Campus (280 La Entrada Rd, Los Lunas, NM 87031)

Final Exam Thursday, May 15th, in-person at UNM-Valencia Campus (280 La Entrada Rd, Los Lunas, NM 87031)

3. You will complete a poster presentation project. Due April 29th. See rubric in Canvas.

4. Your high school teacher will assign you a grade for additional assignments they ask you to complete, attendance, etc. This grade is worth 10% of your overall score in this college course. Discuss the requirements for earning these points with your high school teacher.

For more detailed information, read on.

Office Hours/Study Sessions (feel free to stop by and work with me!): Tuesdays and Thursdays 12:45-1:30pm and Thursdays 2:45-5:15pm in-person at Valencia Campus, Room Arts and Sciences 123 (A123). I'm also available via Zoom during these times, or by appointment.

Free in-person or online tutoring is also available: Stop by the Learning Center in the UNM-Valencia Campus library, email tutor@unm.edu, call (505)228-8860, or visit the link to schedule an online appointment –

<https://outlook.office365.com/owa/calendar/TESTLearningCommons@unmm.onmicrosoft.com/bookings/>

Late work is generally not accepted. Contact me asap at pandrew@unm.edu with any issues, that way we can try to resolve the problem if there are special circumstances.

Calculator: You may use scientific (non-graphing) calculator for exams.

Course Description:

The 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.

MECS Division Chair: Andrew Taylor, ataylor19@unm.edu

Textbook: Openstax [College Algebra](https://openstax.org/details/books/college-algebra-2e), 2nd edition, Abramson. ISBN 9781711494029. <https://openstax.org/details/books/college-algebra-2e>

Pre/Corequisites: Grade of C or higher in MATH 1215X and 1215Y and 1215Z or MATH 1170 + MATH 1215Z or MATH 1215, or minimum ACCUPLACER score of ≥ 239 (A&F) or math ACT score of ≥ 22 , or math SAT score of ≥ 540 . Meets University of New Mexico Core Curriculum Area 2: Mathematics and Statistics. Check with your advisor to make sure you meet the requirements.

How Grades Are Determined:

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

| | | | | | | |
|-------------|-----------|------------|------------|-----------|------------|---------|
| A+: 97-100% | A: 93-96% | A-: 90-92% | B+: 87-89% | B: 83-86% | B-: 80-82% | |
| C+: 77-79% | C: 73-76% | C-: 70-72% | D+: 67-69% | D: 63-66% | D-: 60-62% | F: <60% |

Grades: Your grade will be based on the following allocation of points.

| | |
|---|-------------|
| Worksheets and Exam Reviews | 35% |
| Poster Presentation Project | 10% |
| Grade Assigned by HS Teacher for Additional Assignments | 10% |
| Midterm Exam | 20% |
| Final Exam | 25% |
| Total | 100% |

Student Learning Outcomes

Students will build on their knowledge of polynomial, rational, absolute value, radical, exponential and logarithm functions in the following contexts:

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 the connections between these representations.
3. Graph and interpret key feature of functions, e.g., intercepts, leading term, end behavior, asymptotes.
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 given.
6. Communicate mathematical information using proper notation and verbal explanations.

Other Requirements:

- Reliable access to a computer or tablet, and Internet. A computer (laptop or desktop) is recommended. Preferred browsers are Chrome, Firefox, or Safari. The preferred operating systems are Windows or Apple.
- Access to UNM Canvas requires use your UNM NetID. You may access it directly via Canvas.unm.edu
- Basic scientific calculator. It cannot be an app on your cell phone.
- A scanner or scanner app like AdobeScan or CamScanner to create pdf files of your work.
- Adobe Reader (a free download), preferably version 11.0 or better.

Here are some of the reasons you may be dropped from the class:

- If you miss the first assignment of the semester.
- If you miss more than 3 assignments throughout the semester.
- If you miss an exam.

Time for This Course: Plan to spend a minimum of 9 to 12 hours per week for this class, outside of your high school class. 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 those who pass generally are the ones who spend the time needed to do the work to learn the material.

Exams and Final:

There will be a written midterm and final exam during the semester that you will take in-person at UNM-Valencia Campus. These exams are worth 45% of your overall course grade. You can use a **scientific (non-graphing)** calculator. You can NOT use your phone for a calculator. You are allowed to take the midterm and final only once.

Even if your final answer to a problem is correct, **if there is no work or explanation to support your solution you will NOT receive credit for that question.**

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

- Office Hours: my office hours listed at the beginning of this syllabus. Feel free to come by my office hours or make an appointment to get help.
- Study Groups: You may work together with other members of the class. However, if there is an assignment that is to be submitted individually, that assignment should be your work, not copies from your group.
- Free Tutoring: The Math Center at Valencia campus has free tutoring available online to help with your course content questions as well as question about using tools. Call (505)925-8907 or send an email to tutor@unm.edu to schedule an appointment.
- Student Services: There are various services provided in our Student Services Department. See below about equal access. Also, we have a testing center, advising, and career placement available: [Valencia Student Services](#)

Accessibility Statement and Accommodations: UNM is committed to providing equitable access to learning opportunities for students with documented disabilities. As your instructor, it is my objective to facilitate an inclusive classroom setting, in which students have full access and opportunity to participate. To engage in a confidential conversation about the process for requesting reasonable accommodations for this class and/or program, please contact Accessibility Resource Center (<https://arc.unm.edu/>) at arcsrvs@unm.edu or by phone at 505-277-3506. UNM-Valencia Equal Access Services, at (505) 925-8910 and/or Accessibility Resource Center (<https://arc.unm.edu/>) at arcsrvs@unm.edu (505) 277-3506.

Extra Help and Resources: In addition to your instructor's office hours, there is extra help available at:

- The Learning Center - <https://valencia.unm.edu/campus-resources/the-learning-center/index.html>
- UNM Valencia Library - <http://valencia.unm.edu/library/>
- "Life Resources" - <http://valencia.unm.edu/students/student-resources.html>
- Veteran's Resource Center - vrc@unm.edu
- PASOS Resource Center (505) 925-8546, <mailto:pasos@unm.edu>. The Resource Center is an on-campus center that serves as a "one-stop" for all non-academic needs of UNM-Valencia students.
- Student Health and Counseling (SHAC) at (505) 277-3136. If you are having active respiratory symptoms (e.g., fever, cough, sore throat, etc.) AND need testing for COVID-19; OR If you recently tested positive and may need oral treatment, call SHAC.
- LoboRESPECT Advocacy Center (505) 277-2911 can offer help with contacting faculty and managing challenges that impact your UNM experience.

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 is defined as:

"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.

Title IX Reporting Obligations: The University of New Mexico and its faculty are committed to supporting our students and providing an environment that is free of bias, discrimination, and harassment. The University's programs and activities, including the classroom, should always provide a space of mutual respect, kindness, and support without fear of harassment, violence, or discrimination. Discrimination on the basis of sex includes discrimination on the basis of assigned sex at birth, sex characteristics, pregnancy and pregnancy related conditions, sexual orientation and gender identity. If you have encountered any form of discrimination on the basis of sex, including sexual harassment, sexual assault, stalking, domestic or dating violence, we encourage you to report this to the University. You can access the confidential resources available on campus at the LoboRESPECT Advocacy Center (<https://loborespect.unm.edu>), the Women's Resource Center (<https://women.unm.edu>), and the LGBTQ Resource Center (<https://lgbtqrc.unm.edu>). If you speak with an instructor (including a TA or a GA) regarding an incident connected to discrimination on the basis of sex, they must notify UNM's Title IX Coordinator that you shared an experience relating to Title IX, even if you ask the instructor not to disclose it. The Title IX Coordinator is available to assist you in understanding your options and in connecting you with all possible resources on and off campus. For more information on the campus policy regarding sexual misconduct and reporting, please see <https://policy.unm.edu/university-policies/2000/2740.html> and CEEO's [website](#).

If you are pregnant or experiencing a pregnancy-related condition, you may contact UNM's Office of Compliance, Ethics, and Equal Opportunity at ceo@unm.edu. The CEEO staff will provide you with access to available resources and supportive measures and assist you in understanding your rights.

Student Support: **Confidential** services for students are available at [LoboRESPECT Advocacy Center](#), [Women's Resource Center](#), and the [LGBTQ Resource Center](#). The [Women's Resource Center](#) supports all students, including those who are pregnant or are parents. UNM's lactation stations are marked on the [UNM campus map](#).

Credit-hour statement: This is a three credit-hour course delivered in an entirely asynchronous online modality over 16 weeks during the Spring 2025 semester. Please plan for a *minimum* of 18 hours per week to learn course materials and complete assignments.

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 and/or staff can give you, please reach out to the Veterans Resource Center on 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.

Schedule of Topics:

Note: The instructor for this class reserves the right to change the syllabus at any point during the semester.

| Week of | Topics | Reference Sections in Textbook |
|----------|--|--------------------------------|
| Jan 20 | Functions | 3.1/3.2 |
| Jan 27 | Graphs of Functions Properties of Functions | 3.2/3.3 3.2/3.3 |
| Feb 3 | Library of Functions and Piecewise Transformations | 3.1 3.5 |
| Feb 10 | Linear Functions Quadratic Functions (zeros) | 4.1/4.2 5.1 |
| Feb 17 | Quadratic Functions (properties) Quadratic Functions (models) | 5.1 5.1 |
| Feb 24 | Absolute Value Polynomials | 3.6 5.3/5.5 |
| March 3 | Polynomials Review | 5.3/5.5 |
| March 10 | Midterm Exam Tuesday, March 11th Rational Functions | 5.6 |
| March 17 | Spring Break | |
| March 24 | Graphing Rational Functions Compositions | 5.6 3.4 |
| March 31 | Inverses Exponential Functions | 3.7 6.1/6.2 |
| April 7 | Logarithms Properties of Logarithms | 6.3/6.4 6.5 |
| April 14 | Properties of Logarithms Logarithmic and Exponential Equations | 6.5 6.6 |
| April 21 | Exponential Growth Models (financial) Exponential Growth and Decay Models (other) | 6.7 6.7 |
| April 28 | Poster Project due April 29th Systems of Linear Equations | 7.1 |
| May 5 | Review | |
| May 12 | Final Exam Thursday, May 15th | |