

# MATH 1215X/1215Y/1215Z: Intermediate Algebra Parts I, II, and III Spring 2023

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**Office:** Adjunct Office      **Phone:** 925-8600  
**Instructor Led Help Sessions:** Math Center

## MATH 1215X

Sect.	CRN	Class Time	Days	Location	MML Course Code
503	51125	6:00 PM – 7:15 PM	Mon/Wed	Zoom/UNM Training	chavez87974
512	56353	6:00 PM – 7:15 PM	Mon/Wed	Zoom	

**MATH 1215X COURSE DESCRIPTION:** This 1-credit-hour course includes the first third of an Intermediate Algebra course, including problems in ratio and proportion, unit conversions, solving linear equations, and problems modeled by these, finding equations for lines and graphing them, working with formulas, and scientific notation.

- **Prerequisite/Placement:** Appropriate placement score or a grade of C or better in Math 100 or Math 022 or FYEX 1010 or ISM 100 or ACT Math  $\Rightarrow$ 16 or SAT Math Section  $\Rightarrow$ 440 or ACCUPLACER Next-Generation Advanced Algebra and Functions  $\Rightarrow$ 220, or QRAS  $\Rightarrow$ 237, or Arithmetic  $\Rightarrow$ 265.. Check with your adviser to make sure you meet the requirements.
- While MATH 1215X provides credit toward establishing a full-time load for financial aid purposes, this course does NOT satisfy UNM general education core course requirements.

### MATH 1215X COURSE STUDENT LEARNING OUTCOMES:

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

- A. Demonstrate appropriate use of basic function language and notation.
  1. Communicate or present mathematical concepts using correct mathematical notation and terminology.
- B. Convert between equivalent forms of algebraic expressions.
  1. Rewrite line equations in different forms (slope-intercept, point-slope, standard)
- C. Solve single-variable equations of the types listed above.
  1. Solve for a single variable in a proportion.
  2. Solve for a single variable in a linear equation.
  3. Solve for a specified variable in a formula.
- D. Interpret and communicate algebraic solutions graphically and numerically.
  1. Determine equations for lines in the three forms – slope-intercept and point-slope.
  2. Sketch the graphs of linear functions.
  3. Interpret slope in relation to variable coefficients and as a rate of change.
  4. Graph linear inequalities in one variable on a number line and write corresponding interval notation.

- E. Demonstrate contextual problem-solving skills that include setting up and solving problems and interpreting solutions in context.
  - 1. Determine linear equations from application problems and solve.
  - 2. Set up a linear proportion from an application problem and solve.
  - 3. Analyze solutions to application problems and give them contextual meaning.
- F. Apply appropriate problem-solving methods from among algebraic, graphical, and numerical.
  - 1. Perform unit conversions.
  - 2. Solve linear inequalities in one variable.
  - 3. Simplify expressions written in scientific notation.
  - 4. Simplify multiplication and division problems using scientific notation.
  - 5. Apply solution methods learned to application problems.

## MATH 1215Y

Sect.	CRN	Class Time	Days	Location	MML Course Code
503	51172	6:00 PM – 7:15 PM	Mon/Wed	Zoom/UNM Training	chavez84433
512	56354	6:00 PM – 7:15 PM	Mon/Wed	Zoom	

**MATH 1215Y COURSE DESCRIPTION:** This 1-credit-hour course includes the second third of an Intermediate Algebra course, including solving systems of linear equations, exponent rules, factoring polynomials, operations on polynomials, and solving and graphing quadratics.

- Prerequisite/Placement: A grade of C or better in Math 1215X.
- While MATH 1215Y provides credit toward establishing a full-time load for financial aid purposes, this course does NOT satisfy UNM general education core course requirements.

### **MATH 1215Y COURSE STUDENT LEARNING OUTCOMES:**

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

- A. Demonstrate appropriate use of basic function language and notation.
  - 1. Communicate or present mathematical concepts using correct mathematical notation and terminology.
- B. Convert between equivalent forms of algebraic expressions.
  - 1. Simplify expressions using properties of exponents.
  - 2. Add, subtract, and multiply polynomials.
  - 3. Factor some types of polynomials.
- C. Solve single-variable equations of the types listed above.
  - 1. Solve quadratic equations using factoring, quadratic formula, and the square root method.
- D. Interpret and communicate algebraic solutions graphically and numerically.
  - 1. Determine when linear equations represent parallel and perpendicular lines.
  - 2. Sketch graphs of quadratic functions.
- E. Demonstrate contextual problem-solving skills that include setting up and solving problems and interpreting solutions in context.

1. Determine the three types of outcomes from a system of linear equations in the context of what the graphs look like (terminology about consistent/inconsistent or dependent/independent not emphasized)
  2. Determine a system of linear equations from an application problem and solve if possible.
  3. Analyze solutions to application problems and give them contextual meaning.
- F. Apply appropriate problem-solving methods from among algebraic, graphical, and numerical.
1. Solve systems of two linear equations graphically and algebraically.
  2. Apply solution methods learned to application problems.

## MATH 1215Z

Sect.	CRN	Class Time	Days	Location	MML Course Code
502	51276	6:00 PM – 7:15 PM	Mon/Wed	Zoom	UNM Training chavez17371
512	56355	6:00 PM – 7:15 PM	Mon/Wed	Zoom	

**MATH 1215Z COURSE DESCRIPTION:** This 1-credit-hour course includes the final third of an intermediate algebra course including simplifying radical expressions including the use of rational exponents, solving radical equations, simplifying rational expressions, operations on rational expressions, solving rational equations, development of the concept of functions, solving absolute value equations and inequalities, and an introduction to exponential and logarithmic functions.

- Prerequisite/Placement: A grade of C or better in Math 1215Y.
- While MATH 1215Z provides credit toward establishing a full-time load for financial aid purposes, this course does NOT satisfy UNM general education core course requirements.

### MATH 1215Z COURSE STUDENT LEARNING OUTCOMES:

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

- A. Demonstrate appropriate use of basic function language and notation.
  1. Communicate or present mathematical concepts using correct mathematical notation and terminology.
  2. Correctly use function notation and vocabulary related to functions.
  3. Determine function values for given domain values and determine domain values for given function values.
  4. Determine domains for specific functions.
- B. Convert between equivalent forms of algebraic expressions.
  1. Simplify expressions using properties of exponents.
  2. Simplify rational expressions.
  3. Simplify radical expressions.
  4. Rewrite exponential functions in logarithmic form and vice versa.
- C. Solve single-variable equations of the types listed above.
  1. Solve equations containing rational expressions.
  2. Solve equations containing radical expressions.

3. Solve absolute value equations in one variable.
4. Solve exponential and logarithmic equations using equating bases.
- D. Interpret and communicate algebraic solutions graphically and numerically.
- E. Demonstrate contextual problem-solving skills that include setting up and solving problems and interpreting solutions in context.
  1. Analyze solutions to application problems and give them contextual meaning.
- F. Apply appropriate problem-solving methods from among algebraic, graphical, and numerical.
  1. Perform operations with radical expressions.
  2. Perform operations with rational expressions.
  3. Solve absolute value inequalities in one variable.
  4. Apply solution methods learned to application problems.

***Completing Math 1215X and 1215Y meets the prerequisites for Math 1110 and Math 1350. Completing all three (Math 1215X, 1215Y, and 1215Z) meets the prerequisites for Math 1220 and some science classes. Completing all three, Math 1215X, 1215Y, and 1215Z, meets the same learning objectives as Math 1215.***

**MATH 106 Companion Course:** This course supports students who need an additional scheduled time to work with an instructor on the material in this course. Ask your instructor about the availability of this companion course.

**ALL COURSES: MATH 1215X/1215Y/1215Z**

**COURSE DESCRIPTION:** This course is a study of linear and quadratics functions, an introduction to polynomial, absolute value, rational, radical, exponential, and logarithmic functions. Development of strategies for solving single variable equations and contextual problems. (3 Credit Hours).

**Prerequisites:** Appropriate placement score or a grade of C or better in Math 100 or Math 022 or FYEX 1010 or ISM 100 or ACT Math  $\Rightarrow$ 16 or SAT Math Section  $\Rightarrow$ 440 or ACCUPLACER Next-Generation Advanced Algebra and Functions  $\Rightarrow$ 220, or QRAS $\Rightarrow$ 237, or Arithmetic $\Rightarrow$ 265.. Check with your adviser to make sure you meet the requirements.

**COURSE OBJECTIVES:** In this course, we will explore linear functions, systems of linear equations, linear inequalities, polynomials and factoring, rational functions, and radical functions, and we will introduce exponential and logarithmic functions. A complete list of the Student Learning Objectives for this course is given at the end of this syllabus.

**COURSE MATERIALS:**

**Textbook:** "Developmental Mathematics," 2nd edition, by Sullivan, Struve, Mazzarella.

**Required:** Appropriate MyMathLab (MML) access code (do not purchase a generic code, the code is book specific). You may purchase the 18-week access code for a lower price, but you *cannot* upgrade to the lifetime code once you purchase the restricted one. **Optional:** You may "upgrade" your access by purchasing a hard copy of the book directly from Pearson for an additional cost (between \$50 and \$60 before tax). There will be copies of the book on reserve for use in the library (you will not be able to take the book from the library home).

#### **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.
- Administrative rights to download free software or plug-ins or add-ons on the computer you plan to use for this course. The first time you log in to the MyMathLab (MML) homepage, run the Installation Wizard to ensure you have all the appropriate software installed. Also, make sure you are allowing popups.
- 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. Otherwise, you can create an account when you register in MyMathLab (MML) for this class. Register by going to [mymathlab.com](http://mymathlab.com).
- Access to UNM Learn requires use your UNM NetID to log into UNM Learn. You may access it directly via [learn.unm.edu](http://learn.unm.edu)
- Standard or Scientific calculator. It cannot be an app on your cell phone.
- Adobe Reader (a free download), preferably version 11.0 or better.

#### **ATTENDANCE/PARTICIPATION:**

- You are expected to be on time to each class and stay the entire class, have the necessary course materials on hand, and participate in the lecture and/or group activities to receive full credit for attendance each day.

**Absences:** I do not require you to give me any sort of documentation for missing up to 3 class days. Even if you miss class, you are still expected to complete the assignments posted in MML. You will only be excused for any in-class activity we did.

Here are the reasons I may drop you from the class:

- If you miss the first week of the semester.
- If you have 3 or more absences during the first three weeks of the semester.
- If you are not registered in MML and completing assignments by the end of the first week you are in the class.

If you added late, your counted absences start the day you registered for the class.

- **EXPECTATIONS:** Students are expected to conduct themselves in a polite, courteous, professional and collegial manner. **Cell phones must be set on silent and be out of sight during class. No food or drink is allowed in the computer labs.**

- **Time for This Course:** Plan to spend a *minimum* of 9 to 12 hours per week for this 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.

### **HOMEWORK:**

- Homework is assigned nearly every week based on the 13 units in the course outline. Weekly assignments in MML must be completed not later than beginning of class of the next week for full credit. **Each homework assignment is worth 10 points.** A 10% penalty may be incurred if your homework is late. You will not be able to go back to improve your grade after the due date. The online homework is worth 15% of your overall course grade.
- **Each unit will have a separate written homework due when the online homework is due.** These written assignments must be completed not later than beginning of class of the next week for full credit. **Each homework assignment is worth 20 points.** The written homework is worth 20% of your overall course grade.

**PROJECTS:** During the semester, projects will be assigned in each unit. If available, you may have some class time to begin or work on the project, but it will be designed for you to complete at home. If you are working on this project in groups, you must demonstrate that you contributed to the group answer. I also require *individual* submissions of the project, not one group paper. The projects are worth 20% of your overall course grade.

### **FINAL EXAM:**

- The final is a departmental exam that will test all, or nearly all, of the learning objectives for this course. You will be given a formula sheet for the final, and you can use a calculator. You can NOT use your phone for a calculator. You are allowed to take the final only once. There is a final exam at the end of each individual course: 1215X, 1215Y and 1215Z.

You must score a 70% or better on the final exam to earn a passing grade in this class. You must also have a 70% course average to earn a passing grade, but this should not be a problem if you have been completing your work and showing progress. The final exam will be 20% of your overall course grade.

DO NOT consider any of the grades posted in MyMathLab as representing your actual grade.

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

- Ask My Instructor: Please use the Ask My Instructor button in MyMathLab. This button is available in the computational assignments and the quizzes and sends a message to my email with a link to the question. Do not just send the link; tell me where in the problem you are struggling.

- Office Hours: See my office hours listed at the beginning of this syllabus. 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.
- Free Tutoring: The Math Center at Valencia campus has free tutoring and open labs. Call 505-925-8907 for more information. CAPS on main campus also provides tutoring for which I can get documentation.
- 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](#)

## OTHER IMPORTANT INFORMATION:

**COVID-19 Health and Awareness.** UNM is a mask friendly, but not a mask required, community. To be registered or employed at UNM, Students, faculty, and staff must all meet UNM's [Administrative Mandate on Required COVID-19 vaccination](#). If you are experiencing COVID-19 symptoms, please do not come to class. If you have a positive COVID-19 test, please stay home for five days and isolate yourself from others, per the [Centers for Disease Control \(CDC\) guidelines](#). If you do need to stay home, please communicate with me through Remind or email. I can work with you to provide alternatives for course participation and completion. UNM faculty and staff know that these are challenging times. Please let me, an advisor, or another UNM staff member know that you need support so that we can connect you to the right resources. Please be aware that UNM will publish information on websites and email about any changes to our public health status and community response.

### Support:

[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.](#)

**Equal Access:** In accordance with University Policy 2310 and the Americans with Disabilities Act (ADA), academic accommodations may be made for any student who notifies the instructor of the need for an accommodation. It is imperative that you take the initiative to bring such needs to the instructor's attention, as I am not legally permitted to inquire. Students who may require assistance in emergency evacuations should contact the instructor as to the most appropriate procedures to follow. Contact Accessibility Resource Center at 277-3506 for additional information.

If you need an accommodation based on how course requirement interacts with the impact of a disability, you should contact me to arrange an appointment as soon as possible. At the

appointment we can discuss the course format and requirements, anticipate the need for adjustments and explore potential accommodations. I rely on the Disability Services Office for assistance in developing strategies and verifying accommodation needs. If you have not previously contacted them, I encourage you to do so.

If you are a Valencia campus student, contact Equal Access Services at Valencia Campus, Cheryl Dilger at (505)925-8910 or [Valencia Student Services](#). If you are a main campus student, you can receive documentation from the main campus Accessibility Resource Center. I will not guarantee accommodation without the appropriate documentation.

**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 at [arcsrvs@unm.edu](mailto:arcsrvs@unm.edu) or by phone at 505-277-3506.

**Collegial Behavior:** Since I assume you are all adults, I will expect respectful adult behavior. Engaging in disruptive or unruly behavior could result in your being asked to leave, at which time you will be counted absent, and a referral will be sent to the Associate Dean of Student Services. Continuing to behave in this way could result in your being dropped from the course. Disruptive or unruly behavior includes but is not limited to:

- texting or talking on your cell phone at any time during class,
- continually talking with your neighbor when we are not working on a group activity,
- working on homework from another class,
- reading material or watching media on a mobile device not related to this course or at a time that is inappropriate,
- refusing to participate in the class activities.

### **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 Statement:** In an effort to meet obligations under Title IX, UNM faculty, Teaching Assistants, and Graduate Assistants are considered “responsible employees.” 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>

The instructor will try to have a few disposable masks available in the classroom on a first-come, first-served basis.

### **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](mailto:vrc@unm.edu). The Veterans Coordinator at UNM-Valencia is in the Student Services Office, at 505-925-8560.

### **COURSE AVERAGES:**

Attendance/Class Participation	10%
MyMathLab Homework	15%
Written Homework	20%
Projects (5 in X, 4 in Y, 4 in Z)	20%
Cumulative Final Exam*	35%
<b>Total</b>	<b>100%</b>

**\*You must score at least a 70% on the final exam *and* have a course average of 70% or better to earn a passing grade in the course.**

### **GRADING SCALE:**

<b>Letter Grade</b>	<b>Final Exam score AND Course Weighted Average</b>
<b>A</b>	70% or better <b>AND</b> 90% or better
<b>B</b>	70% or better <b>AND</b> 80% to 89%
<b>C</b>	70% or better <b>AND</b> 70% to 79%
<b>CR</b>	70% or better <b>AND</b> 70% or better

**NC**

**Less than 70% AND Any course grade**

In the case where a student is unsuccessful in the course, if a grade is required for financial aid, please inform the professor.