

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

## Summer 2020 (Mastery Class)

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**Instructor:** Cindi Goodman

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**Office:** Virtual office in Blackboard Learn

**Phone:** 505-859-4469

**OFFICE HOURS:** Mon/Wed 9:00 AM-10:30 AM and by appointment

### MATH 1215X

Sect.	CRN	Class Time	Days	Location	MML Course Code
502	28515	9:00 AM – 11:45 PM	Mon/Wed	Arranged	goodman47904

**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  $\Rightarrow$ 17 or SAT Math Section  $\Rightarrow$ 460 or ACCUPLACER Next-Generation Advanced Algebra and Functions =218-238. 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 them.
  2. Set up a linear proportion from an application problem and solve it.
  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
502	28523	9:00 AM – 11:45 PM	Mon/Wed	Arranged	goodman49255

**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 it 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	28532	9:00 AM – 11:45 PM	Mon/Wed	Arranged	goodman42993

**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.***

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

### **COURSE MATERIALS:**

Textbook: “Developmental Mathematics,” 2nd edition, by Sullivan, Struve, Mazzarella.

- **Required:** Appropriate MyMathLab (MML) access code (do not purchase a generic code, in this case 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.

***Do not purchase an access code that gives you fewer than 18 weeks of access.***

- **Optional:** You may “upgrade” your access by purchasing a hardcopy of the book directly from Pearson for an additional cost (between \$50 and \$60 before tax).

Other Requirements:

- Reliable access to a computer or tablet and the Internet. ***A computer (laptop or desktop) is recommended.*** Preferred browsers are Chrome, Firefox, or Safari. Preferred operating systems are Windows or Apple. Some applications in MyMathLab work best while using Google Chrome.
- 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 login to the MyMathLab (MML) homepage, run the Installation Wizard to make sure 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. will 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. This ***cannot*** be an app on your cell phone or mobile device.
- Adobe Reader (a free download), preferably version 11.0 or better.

**Participation and Progress:** Participation includes

- Attendance. You will schedule a time to meet with me weekly to go over your progress and set goals for completion (10-15 minutes). Log-in to Blackboard Learn and MyMathLab **at least** once a week!
- Questions. Contact me through the discussion board, Ask my Instructor in MyMathLab, or office hours with questions from the homework. My job is to help you learn the material, I cannot do that unless I know where you are misunderstanding or “not getting it.”
- Show Progress. Turn in Guided Notes done and complete other assignments in a timely manner, ask questions from the Computational Assignments, earn a score of 85% on a Quiz to show you are ready for your next Unit. Do revisions and corrections as needed to improve your grade on guided notes and quizzes.
- Turn Work in by Due Date. Ten points are available weekly for participation. You must log in to BlackBoard Learn and MyMathLab and keep scheduled meetings to earn these points. You will turn in your guided notes for each unit before starting the next unit! These points cannot be made up. ***You need to work on this course throughout the week, so you can log your 9 to 12 hours per week.***

**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.

Binder: You should keep a 3-ring binder in which to keep your completed and graded papers including

- Guided Notes (can serve as a reference while you are working on the computational assignments and unit quizzes)
- Notes taken while working the Computation Assignments
- Written and graded Quizzes (use these to study for the final exam)

***Your graded Quizzes will serve as your review for the final exam.***

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

- If you are not registered in MML and completing assignments by the end of the first week you are in the class.
- If you miss completing the start here section in Blackboard Learn by the end of the first week.
- Do not expect me to drop you. If you decide you cannot fulfill the requirements for this class and want to drop yourself, be sure to process a drop (either online or with a form at the Registrar’s office).

**Absences:** Since this is an online class, logging into Learn and MyMathLab is a requirement to complete your assignments. This is an online class, but that does not mean self-paced. Each Unit, Project, the Guided Notes, and the Computational Assignments all have due dates. These can be found on the schedule posted in Learn and at the end of the syllabus.

**Netiquette: This is a guide for how to communicate socially online--proper behavior. Your participation in this course is expected to be academic and constructive. It is important to recognize that each of us may have a different point of view. It is acceptable to debate a topic using facts and citations to support your stance or viewpoint; however, you should conduct your debate in a professional tone.**

**I've attached the following link for a review of UNM's Discussion and Blog Netiquette policy: <http://online.unm.edu/help/learn/students/pdf/discussion-netiquette.pdf>**

**There are some discussion board sections available for you to ask math questions, form study groups, or just vent and chat with each other. I will be checking the discussion board at least once a day to answer questions or help whenever I can. Make sure you use proper Netiquette as described in the policy I have posted a link to.**

**COURSE GRADE:**

Your Course Grade in each class, Math 1215X, 1215Y, and 1215Z, will be determined by a weighted average of the grades you earn in each category listed below.

- Participation and Progress 10%
- Guided Notes 25%
- Computational Assignment 10%
- Unit Quizzes 20%
- Project 15%
- Departmental Final\* 20%  
(Cumulative)

**TOTAL 100%**

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

**GRADING SCALE:**

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

<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
<b>NC</b>	Less than 70% <b>AND</b> 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.

**EXPECTATIONS:** Students are expected to conduct themselves in a polite, courteous, professional, and collegial manner. **Follow Netiquette Guidelines** when communicating with me or other class members.

**How to complete your work for this class:**

The course topics are divided into units. Below is how you will progress through the material:

**Guided Notes (GN):** Guided notes are required! These are notes you should print and complete using your text. After the first day of class, these notes will be posted in UNM Learn or your instructor may upload them in the Document Sharing folder in MML. Completed notes will be due before you start the Computational Assignment. Embedded in the Guided Notes will be the password to open the corresponding Computational Assignment in MML. Your score on each will be out of **10 points**. Guided Notes are worth 25% of your overall course grade.

**Computational Assignment (CA):** Computational Assignments are required! The Computational Assignments are where you practice the concepts you need to learn. You will complete the Guided Notes and the Computational assignment for each unit before taking the unit quiz. For those you need to complete, linked to many questions are Skill Builder problems. If you are struggling with a particular problem, the program will direct you to simpler problems to practice, helping pinpoint where you are having difficulty. Be sure to work the Skill Builder problems linked to those you struggle with. Your score on each will be out of **10 points**. Computational Assignments are worth 10% of your overall course grade.

You will need to score a 90% or better on the Computational Assignment before the Unit Quiz will open.

**Unit Quizzes:** Quizzes are required! Each Unit Quiz will be available after earning at least 90% on the Computational Assignment of the corresponding Unit. You will have **only** 2 attempts at each quiz. You must score 85% on the quiz before you can move to the next unit. If you score below 85%, you must do corrections and submit them to me before you can retake the quiz. Your score on each will be out of **10 points**. If you would like to make quiz corrections, you must have attempted the quiz 2 times. To make corrections, do them on a separate sheet of paper and send them to me. You can earn back half of the points missed. This needs to be done within a week of completing the Unit. Quizzes are worth 20% of your overall course grade.

Sometimes MML will count a problem incorrectly 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 quizzes to see if you can receive some points back. If you completed a Quiz and believe your score should be higher tell me and I will look at it sooner rather than later.

**Projects:** There will be one project for you to complete in each class (Math 1215X, 1215Y, and 1215Z). It will show up on the schedule in the unit corresponding to the concepts addressed. The purpose of this project is to ensure you understand how to apply the mathematical concepts from that unit, so everyone will approach the stated problem in a slightly different way. You can revise and resubmit the project to improve your grade. Make sure that the project solution you turn in is your best work. The project grade will be your percent earned out of 100%. The project is worth 15% of your grade.

**Late Work Policy:** The schedule is to ensure your completion of the class or classes in the allotted time. I will accept all work after the scheduled due date.

DO NOT consider any of the grades posted in MyMathLab as representing your actual grade. Your grades will be updated weekly and available in BlackBoard Learn.

**Final Exam:** Because classes are all online for the Summer 2020 term, the final exam will be administered in the following way:

- You will schedule a time and day with me during which you will need to take this exam.
- You will contact me by phone or meeting room, (we will arrange how we meet when scheduling the exam) 10 minutes before the scheduled exam time. This way you can confirm that you received the honor statement, exam, and formula sheet and can download them and print them. You need not print the exam.
- Use your own paper to complete each problem. Be sure to number the problems clearly and indicate which work goes with which problem. If the instructor must guess which problem the work is for you will not receive credit for your work or answers.
- Be sure to time yourself. You will have 2 hours to complete the final exam.
- Sign the honor statement that came with your exam. If a signed honor statement is not returned with the final, **it will not be graded, and you will not pass the class.**

As soon as you are finished with the exam in the allotted time, create an electronic copy of the documents listed below (just as you have been sending your guided notes). It is preferable for you to create these into one PDF document using either a physical scanner or using an app on your phone but check with me about how you should create the electronic copy. What you should submit: Pages on which you completed your work, your signed honor statement, and any test pages you wrote on.

Contact me by phone or meeting room as you send the document so that I can confirm receipt of a readable version of the exam. If you have Internet connectivity issues or trouble scanning and sending back your completed exam, have a phone available so that you can call to explain your difficulties, and I will give you instructions on how to proceed.

The time from when you are emailed the exam until I have the scanned completed test back shall not be more than 2 hours and 30 minutes.

**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 MML homework 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 email me, log in for online office hours, or make an appointment to get help.



- Study Groups: You may work together with other members of our 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 online tutoring. Call 505-925-8907 or email [tutor@unm.edu](mailto:tutor@unm.edu) for more information. CAPS on the main campus also provide tutoring if you live in Albuquerque or are at the main campus.
- 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:

**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 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, Jeanne Lujan at (505) 925-8910 or [Valencia Student Services](#). If you are the main campus student, you can receive documentation from the main campus Accessibility Resource Center. I will not guarantee accommodation without the appropriate documentation.

**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” 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](http://oeo.unm.edu)). For more information on the campus policy regarding sexual misconduct, see: <https://policy.unm.edu/university-policies/2000/2740.html>

**IMPORTANT DATES:**

- June 5, before 5:00 PM MT – Last day to add or change the grade mode
- June 12, before 5:00 PM MT – Last day to add with form or drop without a grade
- July 4
- July 10, before 5:00 PM MT – Last day to drop without Dean’s permission
- July 27, before 5:00 PM MT – Last day to drop with Dean’s permission and change grade mode with form
- Friday, July 31, Last Day to take the Final Exam.

## Unit Due Dates

### Math 1215X: Intermediate Algebra Part 1 Unit Schedule (*Schedule is subject to change*)

By the Quiz Date (or target date)

- your Guided Notes for the unit are due
- you should have a 90% or better on the Computational Assignment for that unit.

Unit	Quiz Date	Target Date for Math1215X/10215Y Only	Target Date (All)
1	Wednesday, 6/10	Monday, 6/8	Sunday, 6/7
2	Sunday, 6/21	Sunday, 6/14	Thursday, 6/11
3	Wednesday, 7/1	Saturday, 6/20	Sunday, 6/14
4	Sunday, 7/12	Friday, 6/26	Thursday, 6/18
5	Wednesday, 7/22	Thursday, 7/2	Sunday, 6/21

**Math 1215X Project is due with unit 3.**

### Math 1215Y: Intermediate Algebra Part 2 Unit Schedule (*Schedule is subject to change*)

By the Quiz Date (or target date)

- your Guided Notes for the unit are due
- you should have a 90% or better on the Computational Assignment for that unit.

Unit	Quiz Date	Target Date for Math1215Y/1215Z Only	Target Date (All)
6	Wednesday, 6/10	Sunday, 6/7	Sunday, 6/28
7	Wednesday, 6/24	Sunday, 6/14	Thursday, 7/2
8	Wednesday, 7/8	Sunday, 6/21	Sunday, 7/5
9	Wednesday, 7/22	Sunday, 6/28	Thursday, 7/9

Unit	Target Date for Math1215X/1215Y Only
6	Wednesday, 7/8
7	Tuesday, 7/14
8	Monday, 7/20
9	Sunday, 7/26

**Math 1215Y Project is due with unit 7.**

**Math 1215Z: Intermediate Algebra Part 3**

**Unit Schedule (*Schedule is subject to change*)**

By the Quiz Date (or target date)

- your Guided Notes for the unit are due
- you should have a 90% or better on the Computational Assignment for that unit.

Unit	Quiz Date	Target Date for Math1215Y/1215Z Only	Target Date (All)
10	Wednesday, 6/10	Sunday, 7/5	Wednesday, 7/15
11	Thursday, 6/24	Sunday, 7/12	Sunday, 7/19
12	Thursday, 7/8	Sunday, 7/19	Wednesday, 7/22
13	Tuesday, 7/22	Sunday, 7/26	Sunday, 7/26

**Math 1215Z Project is due with unit 11.**

**Grading Outline:**

Participation and Attendance Grade—

Log in to Blackboard Learn	3 points	
Log in to and work on MyMathLab	3 points	
Weekly scheduled meeting	<u>4 points</u>	
	10 points weekly	
	Total points earned ÷ Total points possible X 10	10%

Guided Notes—

Attempt the question	1 point each	
Correct Solution	<u>1 point each</u>	
	Total points earned ÷ Total points possible X 25	25%

Computational Assignments—

Score Earned on MyMathLab		
	Total points earned ÷ Total points possible X 10	10%

Quizzes—

Score Earned on MyMathLab		
	Total points earned ÷ Total points possible X 20	20%
The score will be updated after corrections		

Project--

	Total points earned ÷ Total points possible X 15	15%
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Final Exam--

	Total points earned ÷ Total points possible X 20	<u>20%</u>
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**Total 100%**