

Welcome to MATH 1215.504: Intermediate Algebra – Fall 2022 (Online Class)

#### Instructor

Cindi Goodman <u>cyndia@unm.edu</u> Office: LRC 109 and Zoom scheduled times 505-925-8573

Class Details Online CRN 70824 MML Course ID: goodman26901

Instructor led study sessions Mon/Wed 3:00 pm – 4:00 pm Tues/Thurs 11:00 am – 12:00pm

Instructor led online study sessions Thurs 1:30 pm – 2:30pm or by appointment

Zoom link: https://unm.zoom.us/j/94360342143 Password: mathhelp

MECS Division Chair: Ariel Ramirez aramirez8@unm.edu

#### 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 =>18 or SAT Math Section =>490 or ACCUPLACER Next-Generation Advanced Algebra and Functions =>228, or QRAS=>248, or Arithmetic=>285, or LCPMAS score 4-5. Check with your adviser to make sure you meet the requirements.

#### **Course Outcomes:**

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.

**Credit-hour Statement:** This is a three credit-hour course. An in-person class meets for two 75-minute sessions of direct instruction for sixteen weeks during the Fall 2022 semester plus a minimum of six hours to complete coursework. Please plan for a minimum of nine hours of out-of-class work (or homework, study, assignment completion, and class preparation) each week.

## Course Materials:

Textbook: "Developmental Mathematics," 2nd edition, by Sullivan, Struve, Mazzarella.
 <u>Required:</u> 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.
 <u>Optional:</u> 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 <u>mymathlab.com</u>.
- Access to UNM Canvas requires you to use your UNM NetID to log into UNM Canvas. You may
  access it directly via <u>canvas.unm.edu</u>
- Standard or Scientific calculator. It cannot be an app on your cell phone.
- Adobe Reader (a free download), preferably version 11.0 or better.

## Expectations:

- Students are expected to conduct themselves in a polite, courteous, professional, and collegial manner. When participating in discussions or interacting with me or other students be respectful at all times.
- Students are expected to complete all unit assignments by midnight Sunday of each week. Problems with the internet, Canvas, or MML are not excuses for turning in late work, as you have an entire week to complete the assignments.
- **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.

## Attendance / Participation (10%)

You are expected to log in to UNM Canvas and MyMathLab at least once weekly to complete all assignments by the due date. You are also required to attend one of the class introduction meetings scheduled during the first week using the online office hours zoom link provided or schedule a time to meet with me via Zoom during the first week of classes. <u>This is mandatory</u>. You will also need to schedule individual meetings with me at least three times during the semester. This is worth 10% of your overall grade.

**Absences:** Although this is an online class, there are scheduled assignments to be completed weekly. If you do not log in to UNM Canvas and MML to complete the assignments, you will be counted absent for that week.

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

- If you miss the first week of the semester.
- You do not complete the Course Agreement in the Start Here Module by the end of the second week.
- 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.

### Online MyMathLab Homework (15%)

Homework is assigned every week based on the 13 units in the course outline. Weekly assignments in MML must be completed by midnight Sunday of each week for full credit. After the due date you will need to contact me for the password to access online homework. **Each online homework assignment is worth 10 points**. A 10% penalty may be incurred if your homework is late. No work will be accepted after two weeks past the due date.

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

#### Written Homework (20%)

**Each unit will have a separate written homework due when the online homework is due.** Problems assigned are listed on the schedule at the end of the syllabus and the problems will be found in the e-text in MML. These written assignments must be completed, saved as a pdf document, named correctly and submitted through the link in UNM Canvas by midnight Sunday of each week for full credit. **Each written homework assignment is worth 10 points**. A 10% penalty may be incurred if your homework is late. No work will be accepted after two weeks past the due date.

#### Projects (20%)

During the semester, projects will be assigned in each unit. You are encouraged to work with classmates on the project assignments. If working with a group, I require *individual* submissions of the project, not one group paper. The point value for each project is provided with the assignment. These project assignments must be completed, saved as a pdf document, named correctly, and submitted through the link in UNM Canvas by midnight Sunday of each week for full credit. The projects are worth 20% of your overall course grade. A 10% penalty may be incurred if your homework is late. No work will be accepted after two weeks past the due date.

Written work can be turned in at the Academics office to be put in my box, or you can scan each written assignment and project and save as a **<u>pdf</u>** and named with your first name, last initial, unit number and assignment.

### EX: CindiG.unit1.HW or CindiG.unit5.project

If it is not saved and named correctly, I will not accept it. If you do not have access to a scanner, there are programs that are free on iPhones and androids to allow you to do this. Adobe scan works on both types of phones. If you need help learning how to do this, please meet with me as soon as possible. **Please write your name on your work for every assignment!** 

I will accept three (3) late assignments <u>only</u> without penalty. After that, for each late assignment 10% of the grade will be deducted. No work will be accepted after two weeks past the due date!

## Exams (15%)

There will be two written exams during the semester. I will schedule time for the exam at least two different days and times during the week and is to be taken with me through Zoom. You must sign up for one of the exam dates or schedule a time with me a week in advance. The exams must be taken during the week scheduled. You will be given a formula sheet for each exam, and you can use a calculator. You can NOT use your phone for a calculator. You **cannot** do correction on the exams. The exams can also be taken with me in person at the campus.

#### Final Exam (20%)

The final is a departmental exam that will test all, or nearly all, of the learning objectives for this course. I will schedule time for the final at least two different days and times during the week and is to be taken with me through Zoom. The final can also be taken with me in person at the campus. If you cannot take the final during any of the scheduled times with me, you must contact me and

schedule a time to take your final exam. The final exam must be taken during the week scheduled. 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.

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.

**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 Instructor led study sessions 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: <u>Valencia Student Services</u>
- Work will be graded and returned with feedback within one week of submission. You are encouraged to do corrections and resubmit any written homework or project assignments to improve your grade up to two weeks after the due date.

## **Instructor Response Time**

I routinely check the course for postings or emails, Monday (7 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. I prefer all communication through UNM Canvas.

**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 <u>Valencia Student Services</u>. 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.



## **OTHER IMPORTANT INFORMATION:**

## **UNM Policies**

## Equal Opportunity and Non-Discrimination

Our classroom should always be one of mutual respect, support and kindness without fear of harassment or discrimination of any kind. My office is a Safe Zone area and students are welcome anytime I am on campus. 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 <u>Office</u> of Equal Opportunity. <u>Read more about UNM</u> <u>policy regarding sexual</u> <u>misconduct</u>.

## 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

If you need accommodations, please reach out to me so we can make arrangements for your learning path.

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 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 a 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.

# Academic Integrity, Plagiarism, and Not Doing Your Own Work

UNM has specific policies concerning academic dishonesty: https://policy.unm.edu/regentspolicies/section-4/4-8.html

What Constitutes Cheating: Cheating is any behavior that short circuits your learning. This can range from mindlessly mimicking what you see in the readings or examples, to simply copying someone else's solution, to paying someone to complete the assignment or course for you. The use of any program or app like Chegg, Wolfram Alpha, PhotoMath and others on your computer or phone to copy down solutions for homework, guiz, or exam questions constitutes plagiarism and cheating. If you ask for help from someone other than the instructor or a tutor and then just copy down what they tell you, that is also cheating. In all your assignments you should demonstrate what you understand. If you do not understand, ask for help from your instructor!

## 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.

## **Course Averages:**

20%  5% <u>20%</u>
20%  5%
20%
20%
5%
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\*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:

Letter Grade	Final Exam score AND Course Weighted Average
Α	70% or better AND 90% or better
В	70% or better AND 80% to 89%
С	70% or better <b>AND</b> 70% to 79%
CR	70% or better AND 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.

## **Semester Deadlines**

- Fall 2022– 16-week classes (deadlines will be different for first and second 8-week classes)
- Monday, August 22: First day of class, classes available in Canvas
- Monday, September 5: Labor Day, no class
- Friday, September 2, by 5:00 pm: Last day to add a class or to change credit hours or grade mode in LoboWEB.
- Friday, September 9: Last day to drop without "W" grade and with 100% refund on LoboWEB
- Friday, November 11 : Last day to drop *without* Dean's permission on LoboWEB. Will receive "W" grade and will be responsible for tuition for the course.
- Friday, December 9: Last day to drop with the permission form.
- Finals Week: Monday, December 12 Saturday, December 17

Week	Dates	Sections / Topics	Written Homework Assignments All assignments are due by midnight Sunday of the unit week
1		Start Here Assignments	Due by midnight, August 28
2	8/29-9/4	Unit 1: Sects. 8.3 & 8.4	Sect. 8.3: (pg. 556) #105, pg. 557 #113 Sect. 8.4: (pg. 566) #55, pg. 567 #73, 83 <b>Project 1</b>
3	9/6-9/11	Unit 2: Sects. 8.8 & 8.6	Sect. 8.6: (pg. 586) #43, pg. 587 #54 S Sect. 8.8: (pg. 608) #91, pg. 609 #119 <b>Project 2</b>
4	9/12-9/18	<i>Unit 3</i> : Sects. 9.1, 9.2, 9.3, 9.4, 9.5	Sect. 9.1: (pg. 630) #65 a-d Sect. 9.2: (pg. 644) #123 Sect. 9.4: (pg. 663) #95 a and b Sect. 9.5: (pg. 671) #71 <b>Project 3</b>
5	9/19-9/25	Unit 4: Sects. 9.6 & 10.1	Sect. 9.6: (pg. 679) #71, 87 Sect. 10.1: (pg. 708) #71, (pg. 709) #89 <b>Project 4</b>
6	9/26-10/2	Unit 5: Sects. 10.2 & 10.3	Sect. 10.2: (pg. 716) #53, (pg. 717) 56 Sect. 10.3: (pg. 725) #69, 71 <b>Project 5</b>
7	10/3-10/9	Midterm 1	October 3- October 6
8	10/10-10/16	Unit 6: Sects: 11.1, 11.2, 11.3, 11.4,11.6	Sect. 11.1: (pg. 767) #121 Sect. 11.2: (pg. 772) #79 Sect. 11.3: (pg. 783) #139 Sect. 11.4: (pg. 795) #105 Sect. 11.6: (pg. 809) #92 <b>Project 6</b>
9	10/17-10/23	<i>Unit 7:</i> Sects. 12.1, 12.2, 12.3	Sect. 12.1: (pg. 826) #87 Sect. 12.2: (pg. 835) #94, 95 Sect. 12.3: (pg. 845) #75, 77 <b>Project 7</b>
10	10/24-10/30	Unit 8: Sects. 14.1, 14.2, 14.3, 14.4	Sect. 14.1: (pg. 981) #66 Sect. 14.2: (pg. 987) #55 Sect. 14.3: (pg. 997) #55, 57 Sect. 14.4: (pg. 1007) #37 <b>Project 8</b>
11	10/31-11/6	<i>Unit 9:</i> Sects. 15.1, 12.6,	Sect. 15.1: (pg. 1070) #75 Sect. 12.6: (pg. 866) #79 Sect. 16.2: (pg. 1164) #87 Sect. 16.5: (pg. 1198) #75 <b>Project 9</b>
12	11/7-11/13	Midterm 2	November 7-November 10

13	11/14-11/20	Unit 10: Sect: 13.1, 13.2, 13.3	Sect. 13.1: (pg. 890) #91 Sect. 13.2: (pg. 898) #79 Sect. 13.3: (pg. 905) #87 <b>Project 10</b>
14	11/21-11/27	<i>Unit 11 Sect. :</i> 13.5, 13.7, 14.7	Sect. 13.5: (pg. 922) #87 Sect. 13.7: (pg. 941) #41, 43 Sect. 14.7: (pg. 1043) #91 <b>Project 11</b>
15	11/28-12/4	<i>Unit 12:</i> Sec 15.2, 15.3, 15.4, 15.8	Sect. 15.2: (pg. 1078) #141 Sect. 15.3: (pg. 1083) #35 Sect. 15.4: (pg. 1092) # 137 Sect. 15.8: (pg. 1119) #99 <b>Project 12</b>
16	12/5-12/11	Unit 13: 17.2, 17.3	Sect. 17.2: (pg. 1254) #93 Sect. 17.3: (pg. 1267) #125 Project 13
		Neview	Sunday, December 11
	12/12-12/14	Final Exams Week	December 12-December 14

## MATH 1215 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. Add, subtract, and multiply polynomials.
  - 3. Rewrite line equations in different forms (slope-intercept, point-slope, standard)
  - 4. Factor some types of polynomials.
  - 5. Simplify radical expressions.
  - 6. Rewrite exponential functions in logarithmic form and vice versa.
- 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.
  - 4. Solve quadratic equations using factoring, quadratic formula, and the square root method.
  - 5. Solve equations containing rational expressions.
  - 6. Solve equations containing radical expressions.
  - 7. Solve absolute value equations in one variable.
  - 8. Solve exponential and logarithmic equations using equating bases.
- 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.
  - 5. Determine when linear equations represent parallel and perpendicular lines.
  - 6. 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 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.
  - 4. 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)
  - 5. Determine a system of linear equations from an application problem and solve if possible.
- 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.
  - 6. Solve systems of two linear equations graphically and algebraically.
  - 7. Solve problems including percent
  - 8. Perform operations with radical expressions.
  - 9. Perform operations with rational expressions.
  - 10. Solve absolute value inequalities in one variable.

## Completing Math 1215 meets the prerequisites for Math 1130, Math 1350, Math 1220, and some science classes.