

## Welcome to MATH 1215.502: Intermediate Algebra –(Online/Zoom Class)

### Class Information

#### Instructor

Jacob McKenney  
[coolguy@unm.edu](mailto:coolguy@unm.edu)  
 Canvas Inbox  
 Office: Zoom scheduled times

#### Class Details:

Mon/Wed 4:30-5:45pm on Zoom  
 CRN 54491

Office Hours: Thursdays 4-5pm via Zoom

#### Zoom link:

<https://unm.zoom.us/j/9766561100>

**Passcode: None**

#### MECS Division Chair:

Andy Taylor  
[ataylor19@unm.edu](mailto:ataylor19@unm.edu)

### Course Description:

Math 1215 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.

### Credit-hour statement:

This is a three credit-hour course. An online/zoom class meets for two 75-minute sessions of direct instruction for sixteen weeks during the Spring 2025 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.

### 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  $\Rightarrow$ 18 or SAT Math Section  $\Rightarrow$ 490 or ACCUPLACER Next-Generation Advanced Algebra and Functions  $\Rightarrow$ 228, or QRAS $\Rightarrow$ 248, or Arithmetic $\Rightarrow$ 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.

### Course Materials:

**Textbook:** "Developmental Mathematics," 2nd edition, by Sullivan, Struve, Mazzarella. You will access the E-text and online homework assignments through RedShelf in Canvas, do not opt out or purchase the book or code elsewhere. You will be charged through your Bursar's account.

**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 tutoring center (you will not be able to take the book 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.
- Access to UNM Canvas requires you to use your UNM NetID to log into UNM Canvas. You may access it directly via [canvas.unm.edu](https://canvas.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

**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, always be respectful.
- Time for This Course: Plan to spend a *minimum* of 6 to 9 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.

**Absences:** There are no excused absences. You can miss two classes with no penalty, I do not need a reason. Please communicate with me if something comes up.

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

- If you miss the first week 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.

**Attendance / Participation (10%)**

You are expected to be on time for zoom class, stay the entire class, have the necessary course materials, and participate in class activities to receive full credit for attendance and participation. If you know you will be absent, please let me know by email. Make arrangements with me to make up any work you may miss. **That is your responsibility!**

**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 in the specified time for full credit. The online homework cannot be made up! Each online homework assignment is worth 10 points.

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. 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 and turned in by the due date on Mondays for each date. Each written homework assignment is worth 10 points. I will accept the homework submitted on Canvas as a pdf document until 5:00 pm the day it is due. **It must be saved as a pdf document (not converted to pdf) and submitted correctly to receive full credit.**

### **Projects (20%)**

During the semester, there will be 13 projects (one per 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 11:59 pm Wednesday of the week it is due 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 one week past the due date. Please refer to schedule at end of syllabus.

### **Late Policy:**

All online work is to be submitted by 11:59 pm Tuesday of the week due. All written homework must be turned in by 11:59pm on the Monday of the week they are due. I will accept written work up to one week late, 10% will be deducted for work turned in after the due date. MML online homework will not be accepted late. No work will be accepted more than a week past the day it is due.

You are encouraged to do corrections on written homework to improve your score. You can only do corrections once on an assignment, and only if it is submitted on time. Corrections must be submitted no more than two weeks past the original due date.

### **Term Exams (20%)**

There will be two written exams during the semester. It is to be taken in person with me (location to TBD) , at a campus testing center or with an approved proctor (Please let me know in advance so I can coordinate with the proctor). 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 scientific calculator (not a graphing calculator). You can NOT use your phone for a calculator. You **cannot** do corrections on the exams.

### **Final Exam (20%)**

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 exam, and you can use a scientific calculator (not a graphing calculator). You can NOT use your phone for a calculator. You cannot do corrections on the final exam. 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: Zoom on Thursdays 4-5pm (subject to change)
- 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](#)
- 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.

**Course Averages:**

Attendance / Class Participation	10%
MyMathLab online Homework	15%
Written Homework	20%
Projects (13)	20%
Term Exams (2).	15%
Cumulative Final Exam*	<u>20%</u>

**Total** **100%**

**\*You must score at least 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
A	70% or better AND 90% or better
B	70% or better AND 80% to 89%
C	70% or better AND 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** Spring 2025– 16-week classes

- Monday, January 20: First day of class, classes available in UNM Canvas
- Monday, January 20: MLK Day—NO Classes
- Friday, January 31: Last day to add a class or to change credit hours or grade mode in LoboWEB.
- Friday, February 7: Last day to drop without "W" grade and with 100% refund on LoboWEB
- March 16-23 Spring Break, no classes
- Friday, April 18: 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 8: Last day to drop with the permission form.
- Final Exam: **May 14<sup>th</sup> 4:30-6:30pm, location to be determined.**

UNM Valencia has many resources and centers to help you thrive, including opportunities to get involved, mental health resources, academic support such as tutoring, resource centers for people like you, free food at Valencia Campus Food Pantry, and jobs on campus. Your advisor, staff at the resource centers and Academic Affairs Office, and I can help you find the right opportunities for you.

**Campus Support:** 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.

**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.

**Land Acknowledgement:** Founded in 1889, the University of New Mexico sits on the traditional homelands of the Pueblo of Sandia. The original peoples of New Mexico Pueblo, Navajo, and Apache since time immemorial, have deep connections to the land and have made significant contributions to the broader community statewide. We honor the land itself and those who remain stewards of this land throughout the generations and also acknowledge our committed relationship to Indigenous peoples. We gratefully recognize our history.

**University Policies:**

**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. The [UNM-Valencia Equal Access Services](#) (Sarah Clawson, Coordinator), at (505) 925-8840 or by email at [sjclawson@unm.edu](mailto:sjclawson@unm.edu).

**Title IX:**

Our classroom and our university should always be spaces of mutual respect, kindness, and support, without fear of discrimination, harassment, or violence. Should you ever need assistance or have concerns about incidents that violate this principle, please access the resources available to you on campus. Please note that, because UNM faculty, TAs, and GAs are considered "responsible employees" any disclosure of gender discrimination (including sexual harassment, sexual misconduct, and sexual violence) made to a faculty member, TA, or GA must be reported by that faculty member, TA, or GA to the university's Title IX coordinator. For more information on the campus policy regarding sexual misconduct and reporting, please see: <https://policy.unm.edu/university-policies/2000/2740.html>. Support: [LoboRESPECT Advocacy Center](#), the [Women's Resource Center](#), and the [LGBTQ Resource Center](#) all offer confidential services.

**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.*

Spring 2025

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

**Math 1215: Intermediate Algebra (Spring 2025) *(Course outline is subject to change)***

Week	Dates	Sections / Topics	Online and Written Homework Assignments Due  (Check each assignment to know when it's due)
1	1/22	<i>Unit 1: Sects. 8.3 &amp; 8.4</i>	
2	1/27-1/29	<i>Unit 2: Sects. 8.8 &amp; 8.6</i>	<b>Due 11:59 pm Monday, Jan. 27, Unit 1</b> <b>Due 11:59 pm Wed. Jan. 29, Project 1</b> Sect. 8.3: (pg. 555) #63, 68, 73, 105, 113 Sect. 8.4: (pg. 565) #27, 49, 55, 73, 83
3	2/3-2/5	<i>Unit 3: Sects. 9.1, 9.2, 9.3, 9.4, 9.5</i>	<b>Due 11:59 pm Monday, Feb. 3, Unit 2</b> <b>Due 11:59pm Wed. Feb. 5, Project 2</b> Sect. 8.6: (pg. 586) #23, 27, 35, 43, 54 Sect. 8.8: (pg. 607) #61, 77, 85, 91, 119
4	2/10-2/12	<i>Unit 4: Sects. 9.6 &amp; 10.1</i>	<b>Due 11:59 pm Monday, Feb. 10, Unit 3</b> <b>Due 11:59pm Wed. Feb. 12, Project 3</b> Sect. 9.1: (pg. 630) #65 a-d Sect. 9.2: (pg. 644) #123 Sect. 9.3: (pg. 652) #29, 41, 43 Sect. 9.4: (pg. 663) #95 a and b Sect. 9.5: (pg. 670) #29, 31, 53
5	2/17-2/19	<i>Unit 5: Sects. 10.2 &amp; 10.3</i>	<b>Due 11:59 pm Monday, Feb. 17, Unit 4</b> <b>Due 11:59pm Wed. Feb. 19, Project 4</b> Sect. 9.6: (pg. 678) #67, 71, 81, 87 Sect. 10.1: (pg. 707) #21, 23, 29, 31, 71, 89
6	2/24-2/26	Review for Midterm 1	<b>Due 11:59 pm Monday, Feb. 24, Unit 5</b> <b>Due 11:59pm Wed. Feb. 26, Project 5</b> Sect. 10.2: (pg. 715) #13, 21, 27, 53, 56 Sect. 10.3: (pg. 724) #17, 19, 27, 69, 71
7	3/3-3/5	<b>Midterm 1</b> <i>Unit 6: Sects: 11.1, 11.2, 11.3, 11.4, 11.6</i>	<b>February 3-5</b>
8	3/10-3/12	<i>Unit 7: Sects. 12.1, 12.2, 12.3</i>	<b>Due 11:59 pm Monday, Mar. 10, Unit 6</b> <b>Due 11:59pm Wed. Mar. 12, Project 6</b> Sect. 11.1: (pg. 765) #77, 121 Sect. 11.2: (pg. 772) #79 Sect. 11.3: (pg. 781) #79, 139 Sect. 11.4: (pg. 794) #77, 105 Sect. 11.6: (pg. 808) #79, 83, 92

**Spring Break March 16-23 No Classes**

Spring 2025

9	3/24-3/25	Unit 8: Sects. 14.1, 14.2, 14.3, 14.4	<b>Due 11:59 pm Monday, Mar. 24, Unit 7</b> <b>Due 11:59pm Wed. Mar. 25, Project 7</b> Sect. 12.1: (pg. 826) #57, 87, 93 Sect. 12.2: (pg. 834) #57, 94, 95 Sect. 12.3: (pg. 844) #75, 77, 79, 83
10	3/31-4/2	Unit 9: Sects. 15.1, 12.6,	<b>Due 11:59 pm Monday, Mar. 31, Unit 8</b> <b>Due 11:59pm Wed. Apr. 2, Project 8</b> Sect. 14.1: (pg. 979) #66 Sect. 14.2: (pg. 986) #25, 29, 55 Sect. 14.3: (pg. 996) #27, 49, 55, 57 Sect. 14.4: (pg. 1005) #29, 37
11	4/7-4/9	Review for Mid term #2	<b>Due 11:59 pm Monday, Apr. 7, Unit 9</b> <b>Due 11:59pm Wed. Apr. 9, Project 9</b> Sect. 15.1: (pg. 1069) #57, 75 Sect. 12.6: (pg. 865) #43, 61, 79 Sect. 16.2: (pg. 1163) #29, 59, 87 Sect. 16.5: (pg. 1197) #17, 75
<b>12</b>	4/14-4/16	<b>Midterm 2</b> Unit 10: Sect: 13.1, 13.2, 13.3	April 14-16
13	4/21-4/23	Unit 11 Sect. : 13.5, 13.7, 14.7	<b>Due 11:59 pm Monday, Apr. 21, Unit 10</b> <b>Due 11:59pm Wed. Apr. 23, Project 10</b> Sect. 13.1: (pg. 889) #33, 57, 91 Sect. 13.2: (pg. 896) #22, 26, 79 Sect. 13.3: (pg. 903) #31, 36, 63, 87
14	4/28-4/30	Unit 12: Sec 15.2, 15.3, 15.4, 15.8	<b>Due 11:59 pm Monday, Apr. 28, Unit 11</b> <b>Due 11:59pm Wed. Apr. 30, Project 11</b> Sect. 13.5: (pg. 920) #32,73, 87 Sect. 13.7: (pg. 940) #30, 41, 43, 49, 51 Sect. 14.7: (pg. 1042) #65, 91
15	5/5-5/7	Unit 13: 17.2, 17.3	<b>Due 11:59 pm Monday, May 5, Unit 12</b> <b>Due 11:59pm Wed. May 7, Project 12</b> Sect. 15.2: (pg. 1076) #69, 87, 89, 141 Sect. 15.3: (pg. 1083) #18, 35 Sect. 15.4: (pg. 1091) # 99, 137 Sect. 15.8: (pg. 1117) #42, 99
16			<b>Due 11:59 pm Monday, May. 12, Unit 13</b> <b>Due 11:59pm Wed. May 14, Project 13</b> Sect. 17.2: (pg. 1252) #59, 71, 75, 81, 93 Sect. 17.3: (pg. 1266) #29, 37, 93, 94, 125 <b>No assignments accepted after 5:00 Friday, May 16th</b>
	5/12-5/16	<b>Final Exams Week</b>	May 12-16



**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.**