Math 1215   Intermediate Algebra (DUAL CREDIT)   Fall 2024

Instructor: Precious Andrew   **Email me with any questions at: pandrew@unm.edu**

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

The course format is simple! You are responsible for the 3 items below:

1 - **You will submit written assignments about once per week.**

You need to print out these assignments posted on Canvas.unm.edu and fill them in.
Once you finish each packet, create a pdf file of your work using an app like AdobeScan/Camscanner or a scanner.
Upload your completed written assignments on Canvas.unm.edu before their due dates.

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

Due dates are shown on Canvas.unm.edu

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

Exam 1 Thursday, September 12th in-person at UNM-Valencia Campus (280 La Entrada Rd, Los Lunas, NM 87031). Room and time listed in Canvas.

Exam 2 Thursday, October 24th in-person at UNM-Valencia Campus (280 La Entrada Rd, Los Lunas, NM 87031). Room and time listed in Canvas.

Final Exam Thursday, December 5th (280 La Entrada Rd, Los Lunas, NM 87031). Room and time listed in Canvas.

There is a written review packet for each exam. You will turn in your completed review packet when you arrive at each exam in-person.

3. Your high school teacher will assign you a grade for additional assignments they ask you to complete, attendance, etc. This grade is worth 15% of your overall score in this college course. Discuss the requirements for earning these points with your high school teacher.

If you receive passing (C average or higher) grades in the 3 categories above and score at least a 70% on the final exam, you will pass the class.

For more detailed information, read on.

Office Hours/Study Sessions (feel free to stop by and work with me!): T/R 4:15-5:15pm and Tuesdays 1:00-3:00pm in-person at Valencia Campus, Room Arts and Sciences 123 (A123). I'm also available via Zoom during these times, or by appointment.

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

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

Late work is generally not accepted. Contact me at **pandrew@unm.edu** with any issues, that way we can try to resolve the problem before an assignment is due.

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

Course Description:
This course is a study of linear and quadratic 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).

MECS Division Chair: Ariel Ramirez, aramirez8@unm.edu

Textbook: Developmental Mathematics, **2ⁿᵈ Edition**, Sullivan, Struve, Mazzarella.

Pre/Corequisites: 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.

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

A+: 97-100%   A: 93-96%   A-: 90-92%   B+: 87-89%   B: 83-86%   B-: 80-82%

C+: 77-79%   C: 73-76%   C-: 70-72%   NC: Any score on the final and less than 70% course weighted average
OR less than 70% on the final exam and any course average

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

Attendance	5%
These points will be awarded for submitting all assignments on time, showing up prepared and early for all 3 exams on Valencia Campus, and the completed exam review packets.	
Written Assignments (Units 1-13)	
Project/Task Portion	20%
Written HW Portion	20%
Grade Assigned by HS Teacher for Additional Assignments	15%
Exam 1	10%
Exam 2	10%
Final Exam	20%
Total	**100%**

*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.

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. Simplify rational expressions.
  7. 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.

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

Here are some of the reasons you may be dropped from the class:
- If you miss the first assignment of the semester.
- If you miss more than 3 assignments throughout the semester.
- If you miss an exam.

Time for This Course: Plan to spend a minimum of 9 to 12 hours per week for this class. There is no guarantee you will pass if you dedicate this amount of time, you still need to learn the material and use your time wisely, but those who pass generally are the ones who spend the time needed to do the work to learn the material.

Exams and Final:
There will be two written exams and a written final exam during the semester that you will take in-person at UNM-Valencia Campus. The exams will correspond to the final exams for Math 1215X and Math 1215Y, respectively. These exams are worth 20% of your overall course grade. The final is a departmental exam that will test all, or nearly all, of the learning objectives for this course. The final exam is worth 20% of your overall grade. You will be given a formula sheet for the exams and final, and you can use a **scientific (non-graphing)** calculator. You can NOT use your phone for a calculator. You are allowed to take the exams and final only once.

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

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.

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

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

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

Academic Integrity: Having academic integrity is paramount to your success in any class. Plagiarism or cheating is not tolerated. Any instance of this will result in a grade of zero for that assignment. Here is the link to the UNM Academic Dishonesty Policy: https://policy.unm.edu/regents-policies/section-4/4-8.html. The policy states:

> *Each student is expected to maintain the highest standards of honesty and integrity in academic and professional matters. The University reserves the right to take disciplinary action, up to and including dismissal, against any student who is found guilty of academic dishonesty or who otherwise fails to meet the expected standards. Any student judged to have engaged in academic dishonesty in course work may receive a reduced or failing grade for the work in question and/or for the course.*

> Academic Dishonesty is defined as:
> *"Academic dishonesty" includes, but is not limited to, dishonesty in quizzes, tests, or assignments; claiming credit for work not done or done by others; hindering the academic work of other students; misrepresenting academic or professional qualifications within or without the University; and nondisclosure or misrepresentation in filling out applications or other University records.*

Title IX Reporting Obligations: 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" by the Department of Education, 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, please see: https://policy.unm.edu/university-policies/2000/2740.html.

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; 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

For military-connected students: There are resources on campus designed to help you succeed. You can approach any faculty or staff for help with any issues you may encounter. Many faculty and staff have completed the GREEN ZONE training to learn about the unique challenges facing military-connected students. If you feel that you need help beyond what faculty and/or staff can give you, please reach out to the Veterans Resource Center on main campus at 505-277-3181, or by email at vrc@unm.edu. The Veterans Coordinator at UNM-Valencia is in the Student Services Office, at 505-925-8560.

Schedule of Topics:

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

Week of	MATH 1215 Topics
Aug 19	8.3 Linear Equations Refresher 8.4 Formulas 8.6 Percent Problems 8.8 Inequalities
Aug 26	9.1 Equations in Two Variables 9.2 Graphing Basics 9.3 Slope of a Line 9.4 Slope-Intercept Form 9.5 Point-Slope Form
Sep 2	9.6 Parallel and Perpendicular Lines 10.1/10.2/10.3 Linear Systems
Sep 9	Review **Exam 1 Thursday, September 12th in-person at UNM-Valencia Campus (280 La Entrada Rd, Los Lunas, NM 87031). Room and time listed in Canvas.**
Sep 16	11.1 Polynomials 11.2 Adding and Subtracting Polynomials 11.3 Multiplying Polynomials I 11.4 Multiplying Polynomials II 11.6 Scientific Notation
Sep 23	12.1 Factoring out the GCF 12.2 Factoring Trinomials I 12.3 Factoring Trinomials II
Sep 30	14.1 Graphs of Equations 14.2 Relations 14.3 Functions
Oct 7	14.4 Graphs of Functions 15.1 Square Roots **Fall Break**
Oct 14	12.6 Solving Quadratic Equations by Factoring 16.2 Solving Quadratic Equations with the Quadratic Formula 16.5 Quadratic Functions
Oct 21	Review **Exam 2 Thursday, October 24th in-person at UNM-Valencia Campus (280 La Entrada Rd, Los Lunas, NM 87031). Room and time listed in Canvas.**
Oct 28	13.1 Rational Expressions I 13.2 Multiplying and Dividing Rational Expressions 13.3 Adding and Subtracting Rational Expressions I
Nov 4	13.5 Adding and Subtracting Rational Expressions II 13.7 Solving Rational Equations 14.7 Absolute Value Equations and Inequalities
Nov 11	15.2 Rational Exponents I 15.3 Rational Exponents II 15.4 Radicals
Nov 18	15.8 Radical Equations 17.2 Introduction to Exponential Functions
Nov 25	17.3 Introduction to Logarithmic Functions Review **Thanksgiving Break**
Dec 2	Review **Final Exam Thursday, December 5th (280 La Entrada Rd, Los Lunas, NM 87031). Room and time listed in Canvas.**