Math 1215: Intermediate Algebra

Spring 2021

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Online Office Hours via Zoom Mon-Thurs 9:30 am – 11:00 am
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3 Credit Hours

CONTENTS

COURSE DESCRIPTION

Sect.	CRN	Class Time	Days	Location	MML Course Code
502	51409	Online	Online	Online	goodman34312

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

Student Learning Outcomes/Course Objectives

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

At the end of the syllabus are the objectives for the course. Each module/week/unit will have specific learning objectives listed on the Overview Page. The activities in that module (i.e.: discussions, assignments, and assessments) are developed so that you can demonstrate you have met these objectives:

Prerequisites and Co-requisites

Appropriate placement score or a grade of C or better in Math 100 or Math 022 or ACT Math =>18 or SAT Math Section =>490 or ACCUPLACER Next-Generation Advanced Algebra and Functions =>276 or QRAS =>253 or Advanced A&F =>228. Check with your adviser to make sure you meet the requirements.

TECHNICAL SKILLS

In order to participate and succeed in this class, you will need to be able to perform the following basic technical tasks:

- Use UNM Learn (help documentation located in "How to Use Learn" link on left course menu, and also at Online Student Documentation[1]). Also, UNM-Valencia provides a Blackboard Learn Jumpstart self-learning module to give you practice with the most commonly used tools in UNM Learn. Ask your instructor if you do not see the UNM-Valencia Blackboard Learn Jumpstart in your list of classes in UNM Learn.
- Use email – including attaching files, opening files, downloading attachments
- Copy and paste within applications including Microsoft Office
- Open a hyperlink (click on a hyperlink to access a website or online resource)
- Use Microsoft Office applications
    - Create, download, update, save and upload MS Word documents
    - Download, annotate, save and upload PDF files
    - Access MS Teams
- Use the in-course web conferencing tool (Collaborate Web Conferencing software in UNM Learn) or use Zoom or other web conferencing tool
- Download and install an application or plug in – required for participating in web conferencing sessions

[1] http://online.unm.edu/help/learn/students/

TECHNICAL REQUIREMENTS

Computer

- A high-speed Internet connection is highly recommended.
- Supported browsers include: Chrome, Firefox, or Safari. Preferred operating systems are Windows or Apple.
- Any computer capable of running a recently updated web browser should be sufficient to access your online course. However, bear in mind that processor speed, amount of RAM and Internet connection speed can *greatly* affect performance. ***Be aware, some programs that use mathematics will not work well on mobile devices such as smart phones or tablets.***
- Microsoft Office products are available free for all UNM students (more information on the UNM IT Software Distribution and Downloads page[2])
- Please update your contact information in Loboweb: MyUNM Login[3]. When you log into MyUNM, Enter LoboWeb. Click on the Personal Information link to make sure your contact information is up to date.
- Laptops may be available for checkout for the Fall semester from the UNM-Valencia Library[4]. Contact the librarians for more information.

Web Conferencing

Web conferencing will be used in this course for office hours and scheduled individual meetings For the online sessions, you will need:

- A USB headset with microphone. Headsets are widely available at stores that sell electronics, at the UNM Bookstore or online.
- A high-speed internet connection is highly recommended for these sessions. A wireless Internet connection may be used if successfully tested for audio quality prior to web conferencing.
- You should also dress as you would when attending an in-person meeting, even if you do not turn on your video camera

Technical Support

- For UNM Learn Technical Support: (505) 277-0857 (24/7) or use the “Create a Tech Support Ticket” link in your course.
- For UNM-Valencia IT Support: (505)925-8911
- For UNM Web Conference Technical Help: (505) 277-0857

[2] http://it.unm.edu/software/index.html
[3] http://my.unm.edu/home
[4] http://valencia.unm.edu/library/index.html

TEXTBOOK AND SUPPLEMENTAL MATERIALS

Required Textbooks:

"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.

Recommended and/or Optional:

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). 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).

Specific Course Requirements

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.

COURSEWORK AND PARTICIPATION

Instructor Response Time

I routinely check the course for postings or emails, Monday (8 am) – Friday (12 pm) 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.

Procedures for Completing Coursework

- I will accept any late work up until the end of the 14th week of classes, Sunday, April 25. ***NO late work will be accepted after that***.
- If you anticipate difficulty completing an assignment notify me as soon as possible to make arrangements.
- All written work needs to be submitted online. If you have a difficulty using a tool to complete work, use the "Create a Tech Support Ticket" link in the Course Menu immediately and notify your instructor as well.

Expectations for Participation

Example Expectations:

- time required at least 9-12 hours per week
- students are expected to learn how to navigate in Learn
- students are expected to keep abreast of course announcements
- students are expected to use the Learn course email as opposed to a personal email address
- students are expected to keep instructor informed of class related problems, or problems that may prevent the student from full participation
- students are expected to address technical problems immediately

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 split into 13 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. Completed notes will be due before you start the Computational Assignment. Each question is worth **2 points**, 1 for attempting the question, and 1 for the correct answer. You will not get feedback if you do not attempt the question! 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 20% 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 15% of your overall course grade.

You will need to score a 75% 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 75% on the Computational Assignment of the corresponding Unit. You will have **only** 2 attempts at each quiz and the last attempt must be taken by 11:59 pm on Sunday of the Unit week. After the second attempt you can make corrections on paper to earn half credit for problems missed. I will give up to 3 (and only 3) time extensions on a quiz for the entire semester. After you use the 3 extensions, NO MORE will be available for any reason! Your score on each will be out of **10 points.** Quizzes are worth 15% of your overall course grade.

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 with the quiz. You can earn back half of the points missed. This needs to be done within a week of completing the Unit.

Sometimes MML will count a problem incorrect 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: Projects are required! During the semester, three projects will be assigned. You can work with each other on these projects, but you must submit YOUR OWN work. Your score on each will be out of **10 points.** The projects are worth 15% of your overall course grade.

Exams: There will be two exams during the semester that will be written exams given during a one-week period. You will be given a formula sheet for the exam and you can use a calculator.

You can NOT use your phone for a calculator. The average of the two exams is worth 15% of the overall course grade. You will have one week during which you will take the exam with me at a scheduled time via Zoom. You must schedule a time to take each exam one week prior to exam week.

Final Exam: The final is a departmental exam that will test you over all, or nearly all, of the learning objectives for this course. You will be given a formula sheet for the final and you can use a calculator. You can NOT use your phone for a calculator. You are allowed to take the final ***only once***. You will have one week during which you will take the exam with me at a scheduled time via Zoom. You must schedule a time to take each exam one week prior to exam week.
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 if you have been completing your work and showing progress, this should not be a problem. The final exam will be 20% of your overall course grade.

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

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 review of UNM's Discussion and Blog Netiquette policy: UNM Netiquette document[5]

NOTES TO STUDENTS ABOUT PARTICIPATION IN A COURSE USING UNM LEARN:

Tracking Course Activity
UNM Learn automatically records all students' activities including: your first and last access to the course, the pages you have accessed, the number of discussion messages you have read and sent, web conferencing, discussion text, and posted discussion topics. This data can be accessed by the instructor to evaluate class participation and to identify students having difficulty

Submitting Assignments
All written work is to be saved with the student's first name and last initial_unit number_assignment. It is to be submitted as an attachment through Blackboard Learn.

Example: CindiG_unit1_gn

When you submit an assignment via UNM Learn, you will receive an email receipt of your submission from *do-not-reply@learn.unm.edu*. Save this email as confirmation of your submission.

[5] http://online.unm.edu/help/learn/students/pdf/discussion-netiquette.pdf

GRADING PROCEDURES

Guided Notes—

Attempt the question	1 point each	
Correct Solution	1 point each	
Total points earned ÷ Total points possible X 20		20%

Computational Assignments—

Score Earned on MyMathLab

Total points earned ÷ Total points possible X 15	15%

Quizzes—

Score Earned on MyMathLab

Total points earned ÷ Total points possible X 15 (The score will be updated after corrections)	15%

Project--

Total points earned ÷ Total points possible X 15 (average of all three)	15%

Midterm Exams—

Total points earned ÷ Total points possible X 15 (average of both)	15%

Final Exam--

Total points earned ÷ Total points possible X 20	20%
Total	**100%**

Grading Scale

Guided Notes	20%
Computational Assignments	15%
Quizzes	15%
Projects (3)	15%
Term Exam (2)	15%
Cumulative 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.**

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	Any AND 69% or less

UNM POLICIES

Equal Opportunity and Non-Discrimination

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[6] (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 Office of Equal Opportunity[7].
Read more about UNM policy regarding sexual misconduct[8].

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[9] has additional helpful information on this topic.

Accessibility and Accommodations

The American 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 for reasonable accommodations of their disabilities. If you have a disability requiring accommodation, please contact:

- UNM-Valencia Student Services[10] if you are a Valencia campus student. The phone number is 505-925-8560
- UNM Accessibility Resource Center[11] 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.

Accessibility Statements

Blackboard's Accessibility statement[12]
Microsoft's Accessibility statement[13]
Include links to accessibility statements for all other technologies included in the course.

Academic Integrity

You should be familiar with UNM's Policy on Academic Dishonesty[14] and the Student Code of Conduct[15] which outline academic misconduct defined as plagiarism, cheating, fabrication, or facilitating any such act.

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[6] https://www2.ed.gov/about/offices/list/ocr/docs/qa-201404-title-ix.pdf
[7] http://oeo.unm.edu/
[8] https://policy.unm.edu/university-policies/2000/2740.html
[9] https://copyright.unm.edu/
[10] http://valencia.unm.edu/students/student-services.html
[11] https://arc.unm.edu/
[12] https://www.blackboard.com/blackboard-accessibility-commitment
[13] https://www.microsoft.com/en-us/accessibility/
[14] https://pathfinder.unm.edu/campus-policies/academic-dishonesty.html
[15] https://pathfinder.unm.edu/code-of-conduct.html

Drop Policy:
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 second week.

You will be dropped if you do not complete, sign and turn in the course contract found in the Start Here Module by the due date.

UNM Policies: This course falls under all UNM policies for last day to drop courses, etc. Please see or the UNM Course Catalog for information on UNM services and policies. Please see the UNM academic calendar for course dates, the last day to drop courses without penalty, and for financial disenrollment dates.

UNM RESOURCES

- **UNM Valencia Campus Tutoring Services**[16]
- **UNM Main Campus CAPS Tutoring Services**[17]
- **UNM-Valencia Library**[18]
- **UNM Libraries**[19]
- **"Life" Resources available to UNM-Valencia Students**[20]
- **Student Health & Counseling (SHAC) Online Services**[21]

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.

[16] http://valencia.unm.edu/campus-resources/the-learning-center/learning-center.html
[17] http://caps.unm.edu/services/online-tutoring/olc.php
[18] http://valencia.unm.edu/library/index.html
[19] https://library.unm.edu/
[20] http://valencia.unm.edu/students/student-resources.html
[21] https://shac.unm.edu/

SEMESTER DEADLINES

Fall 2020 – 16-week classes (deadlines will be different for first and second 8-week classes)

- Monday, January 18: Martin Luthor King, Jr. Holiday, no class
- Tuesday, January 19: First day of class, classes available in Blackboard Learn
- Friday, January 29, by 5:00 PM: Last day to add a class or to change credit hours or grade mode in LoboWEB.
- Friday, February 5: Last day to drop without "W" grade and with 100% refund on LoboWEB
- March 14-21: SPRING BREAK, no class
- Friday, April 16: Last day to drop *without* Dean's permission on LoboWEB. Will receive "W" grade and will be responsible for tuition for the course.
- May 10-15 Final Exams

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. Perform operations with radical expressions.
    8. Perform operations with rational expressions.
    9. Solve absolute value inequalities in one variable.

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

Course Schedule

Math 1215.509 Schedule Fall 2020				
Week	Unit	Sections	Assignments	Due Dates by 11:59 PM
1	1	5.1, 5.2, 5.4, 6.1	Guided Notes Computational Assignment Unit Quiz	Sunday, January 24
2	2	6.2, 8.1, 8.2	Guided Notes Computational Assignment Unit Quiz	Sunday, January 31
3	3	8.3, 8.4	Guided Notes Computational Assignment Unit Quiz **Project 1**	Sunday, February 7
4	4	8.8, 9.1, 9.2	Guided Notes Computational Assignment Unit Quiz	Sunday, February 14
5	5	9.3, 9.4, 9.5	Guided Notes Computational Assignment Unit Quiz Schedule Exam 1	Sunday, February 21
6	1-5	Review Take Exam 1	Take between February 22 - 25	Thursday, February 25
7	6	11.1, 11.2, 11.3, 11.4	Guided Notes Computational Assignment Unit Quiz	Sunday, March 7
8	7	11.6, 9.6, 10.2, 12.1	Guided Notes Computational Assignment Unit Quiz	Sunday, March 14
9	8	12.2, 12.3, 15.1, 6.4	Guided Notes Computational Assignment Unit Quiz **Project 2**	Sunday, March 28
10	9	12.6, 16.2, 14.3, 16.5	Guided Notes Computational Assignment Unit Quiz Schedule Exam 2	Sunday, April 4
11	6-9	Review Take Exam 2	Take between April 5-8	Thursday, April 8
12	10	14.1, 14.2, 14.3, 14.4, 17.2	Guided Notes Computational Assignment Unit Quiz	Sunday, April 18
13	11	17.3, 15.2, 15.3, 15.4	Guided Notes Computational Assignment Unit Quiz **Project 3**	Sunday, April 25
14	12	15.8, 13.1, 13.2, 13.3	Guided Notes Computational Assignment Unit Quiz-- **Any Late Assignments**	Sunday, May 2
15	13	13.5, 13.7, 14.7	Guided Notes Computational Assignment Unit Quiz Schedule Final Exam	Sunday, May 9
16	1-13	Review Take Final Exam	Take between May 10-12	**Wednesday, May 12**

Last update: 01/07/21