Math 1215Z: Intermediate Algebra



Summer 2023 Synchronous-Online 1 credit hour

Instructor: Andy Taylor: ataylor19@unm.edu

<u>Tutoring Hours:</u> Mon/Wed, 2pm-4:30pm: Zoom Room: <u>https://unm.zoom.us/j/98190874379</u> (OR BY APPOINTMENT)

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

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| "Developmental Mathematics," 2nd edition, by Sullivan, Struve, Mazza | arella4 |
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CLASS MEETINGS AND LOCATION:

Class Meetings: Tuesdays and Thursdays from 2:00pm-2:50pm via Zoom

Location: https://unm.zoom.us/j/98866391856

Please note that you must use an authenticated UNM Zoom account to join these meetings (created with your UNM email). There is no passcode.

COURSE DESCRIPTION

Math 1215Z-502: Intermediate Algebra 1C

A study of linear and quadratic 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.

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

Student Learning Outcomes/Course Objectives

Math 1215Z

1. Demonstrate appropriate use of basic function language and notation.

(a) Communicate or present mathematical concepts using correct mathematical notation and terminology.

(b) Correctly use function notation and vocabulary related to functions.

(c) Determine function values for given domain values and determine domain values for given function values.

- (d) Determine domains for specific functions.
- 2. Convert between equivalent forms of algebraic expressions.
- (a) Simplify expressions using properties of exponents.
- (b) Simplify rational expressions.
- (c) Simplify radical expressions.
- (d) Rewrite exponential functions in logarithmic form and vice versa.
- 3. Solve single-variable equations of the types listed below:
- (a) Solve equations containing rational expressions.
- (b) Solve equations containing radical expressions.
- (c) Solve absolute value equations in one variable.
- (d) Solve exponential and logarithmic equations using equating bases.

4. Interpret and communicate algebraic solutions graphically and numerically.

5. Demonstrate contextual problem-solving skills that include setting up and solving problems and interpreting solutions in context.

- (a) Analyze solutions to application problems and give them contextual meaning.
- 6. Apply appropriate problem-solving methods from among algebraic, graphical, and numerical.
- (a) Perform operations with radical expressions.
- (b) Perform operations with rational expressions.
- (c) Solve absolute value inequalities in one variable.
- (d) Apply solution methods learned to application problems.

Prerequisites and Co-requisites

This is the third course in a three-part sequence. In order to receive transfer credit for MATH 1215, all courses in this sequence (MATH 1215X, MATH 1215Y, MATH 1215Z) must be taken and passed.

Pre- or corequisite: 1215Y.

TECHNICAL SKILLS

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

- Use UNM Canvas.
- 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)

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 smartphones or tablets.*
- Microsoft Office products are available free for all UNM students (more information on the <u>UNM IT Software Distribution and Downloads page</u>¹)
- Please update your contact information in Loboweb: <u>MyUNM Login²</u>. 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 <u>UNM-Valencia</u> <u>Library³</u>. Contact the librarians for more information.

Web Conferencing

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

- A USB headset with a 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 before 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

TEXTBOOK AND SUPPLEMENTAL MATERIALS

Required Textbooks: (Obtained through Canvas via Inclusive Access with RedShelf)

"Developmental Mathematics," 2nd edition, by Sullivan, Struve, Mazzarella.

¹ <u>http://it.unm.edu/software/index.html</u>

² <u>http://my.unm.edu/home</u>

³ <u>http://valencia.unm.edu/library/index.html</u>

<u>Required:</u> Appropriate MyLab Math access code obtained via Inclusive Access with RedShelf. Please use the RedShelf Course Materials tab in Canvas to obtain access to MyLab.

Our MyLab course ID: taylor00393

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 <u>mymathlab.com</u>.

COURSEWORK AND PARTICIPATION

Instructor Response Time

I routinely check the course for postings or emails, Monday (8 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.

Late/Missing Work:

You may submit up to 3 assignments late (you have 3 late passes), for any reason this semester. It doesn't matter if you're sick or you go out of town to go to a concert. I'd recommend saving some late passes in case you really need them, but once you've used your four late passes, no more late assignments will be accepted.

To use a late pass:

Please let me know at least 2 hours prior to the due date via UNM email if you anticipate a late submission for a homework assignment or project. You don't need to tell me why, only that you need to use a late pass and how many late passes you've used (i.e. "I need to use my 2nd late pass on this homework assignment/project due tonight").

Expectations for Participation

- The time recommended for success in this course is 9-12 hrs per week
- Students are expected to learn how to navigate in UNM Canvas and check Canvas course regularly (daily/multiple times per week).
- Students are expected to keep abreast of course announcements.
- Students are expected to keep the instructor informed of class-related problems or problems that may prevent the student from full participation.
- Students should know that the secret phrase is, "I can do this."
- Students are expected to address technical problems immediately.

Netiquette

One of the overriding principles in online conversations is to "craft your responses effectively." It is sometimes difficult to remember that real people are reading posted messages. This is especially true of online communication where others do not have the opportunity to see body language or hear the tone of voice; therefore, misunderstandings are more likely.

Please, follow these guidelines in **all** of your online responses and discussion postings.

- Honor everyone's right to an opinion.
- Respect the right of each person to disagree with others.
- Respond honestly but thoughtfully and respectfully; use language that others will not consider foul or abusive. You may also use emoticons to convey a lighter tone.
- Respect your privacy and the privacy of others by not revealing information which you deem private and which you feel might embarrass you or others
- Be prepared to clarify statements that might be misunderstood or misinterpreted by others.

A Special Note about Anger

- Do not send messages that you have written when you are angry, even anonymous ones. In the online world, angry messages are known as "flaming" and are considered bad behavior. Venting and flaming are two different things. It is possible to vent without becoming "ugly." Stick to the facts of what is causing you frustration.
- Do not send messages that are written all in upper case; this is the visual equivalent of SHOUTING. It is considered aggressive and is considered bad behavior. If you ever feel like shouting a message, take a deep breath, and wait until you have calmed down before responding. Then, respond calmly and factually.

Overall Grade Breakdown:

Below is how your grade will be determined:

Class Discussion/Participation (10%): You will be expected to discuss some problems in class, and be present with your camera on (and microphone, when needed) – if you are called on and asked a question, or are working on group problems, this grade is representative of your willingness to participate. This participation is worth **10% of your grade**.

Online Homework (15%): Each unit will have online homework problems available through MyLab that you will need to complete. **The online homework is worth 15% of your grade.**

Written Homework (20%): Each unit will have a separate written homework that you will submit to me, roughly every two weeks, via dropboxes in Canvas. The purpose of the written homework is to determine if you are understanding the concepts correctly, and able to show your work properly for credit on the exams. Illegible homework will not be graded. Written Assignments are worth 20% of your overall course grade.

Projects (20%): <u>Projects are required</u>! During the semester, projects for each of the 4 units will be assigned and submitted via dropboxes in Canvas. You can work with each other on these

projects, but you must submit YOUR work. Your score on each will be out of **20 points.** The **projects are worth 20% of your overall course grade.**

Final Exam (35%): The final is a departmental exam given at the end of the semester 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 scientific (but not capable of graphing) calculator. You are allowed to take the final *only once*. The final exam will be 35% of your overall course grade and you <u>must receive a 70% or better to pass the course and move on</u>.

Please note that this is an **in-person exam, to be held at UNM Valencia Workforce Training Center**: 1020 Huning Ranch Loop SW, Los Lunas, NM 87031 (specific room TBA).

Submitting Assignments

All written work is to be submitted (on time) in the indicated Canvas dropbox on the day indicated on the dropbox. Please make sure your work is neat, organized and orderly, with problems presented in the order in which they are listed. Late submissions without communication of a late pass (prior to the due date) will receive a 0, so PLEASE be mindful of this! You must submit your work on time or let me know that you need to use a late pass prior to the due date if you'd like to receive credit for your work.

GRADING PROCEDURES

- Grades in specific content areas reflect mastery of student learning objectives. Grading of written homework, projects, and exams will take into account proper notation, demonstrated knowledge of problem-solving procedures, showing ALL steps/ calculations and legibility.
- My expected response time for grading your written work will generally range from 3 to 7 days. Grades for work completed in MML should be immediately available upon completion of the assignment.

COURSE AVERAGES:

| Class Participation | 10% |
|------------------------|-----|
| Online Homework | 15% |
| Written Homework | 20% |
| Projects (4) | 20% |
| Cumulative Final Exam* | 35% |

Total

*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 |
|--------------|--|
| Α | 70% or better AND 90% or better |
| В | 70% or better AND 80% to 89% |
| С | 70% or better AND 70% to 79% |
| CR | 70% or better AND 70% or better |
| NC | Any AND 69% or less |

Drop Policy:

I reserve the right, but not the obligation to drop you from the course should you not meet these course participation requirements:

- If you miss more than one class in the first week, or more than two weeks of classes, consecutively, at any point in the semester.
- If you are not completing assignments by the end of the first week you are in the class. If you have any questions about what is required of you for this course, please contact me as soon as possible so I can help!
- If you miss two or more assignments in the first 3 weeks, or 2+ weeks of assignments in a row, at any point throughout the semester, without communicating with me.

I understand that life happens – all I ask is for you to keep regular communication with me, and you will not be dropped unless you choose to be.

FOR MATERIAL/ASSIGNMENT SCHEDULE AND WRITTEN ASSIGNMENT PROBLEMS, PLEASE CHECK LAST PAGES, FOLLOWING UNM POLICIES.

UNM POLICIES

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 <u>Administrative Mandate on</u> <u>Required COVID-19 vaccination</u>. 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 <u>Centers for Disease Control (CDC) guidelines</u>. If you do need to stay home, please communicate with me via email (<u>emailaddress@unm.edu</u>) or Canvas course messaging; 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 us know that you need support so that we can connect you to the right resources and please be aware that UNM will publish information on websites and email about any changes to our public health status and community response.

Support:

<u>Student Health and Counseling</u> (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.

<u>LoboRESPECT Advocacy Center</u> (505) 277-2911 can offer help with contacting faculty and managing challenges that impact your UNM experience.

Accommodations: UNM is committed to providing courses that are inclusive and accessible for all participants. As your instructor, it is my objective to facilitate an accessible classroom setting, in which students have full access and opportunity. If you are experiencing physical or academic barriers, or concerns related to mental health, physical health and/or COVID-19, please consult with me after class, via email/phone or during office/drop-in hours (I am not legally permitted to inquire about the need for accommodations). We can meet your needs in collaboration with <u>UNM Valencia Campus community</u> (505) 925-8910 and/or the Accessibility Resource Center (<u>https://arc.unm.edu/</u>) at arcsrvs@unm.edu or by phone (505) 277-3506.

Support: Contact me via email (emailaddress@unm.edu) or Canvas messaging or in office/drop-in hours.

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

Support:

UNM Valencia Learning Commons (tutoring).

<u>Center for Academic Program Support</u> (CAPS). Many students have found that time management workshops can help them meet their goals (consult (CAPS) website under "services").

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" 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.

Support: <u>LoboRESPECT Advocacy Center</u> and the support services listed on its website, the <u>Women's Resource</u> <u>Center</u> and the <u>LGBTQ Resource Center</u> all offer confidential services and reporting.

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.

Resource: Division for Equity and Inclusion.

Citizenship and/or Immigration Status: All students are welcome in this class regardless of citizenship, residency, or immigration status. Your professor will respect your privacy if you choose to disclose your status. As for all students in the class, family emergency-related absences are normally excused with reasonable notice to the professor, as noted in the attendance guidelines above. UNM as an institution has made a core commitment to the success of all our students, including members of our undocumented community. The Administration's welcome is found on our website: http://undocumented.unm.edu/.

Respectful and Responsible Learning: We all have shared responsibility for ensuring that learning occurs safely and equitably. UNM has important policies to preserve and protect the academic community, especially policies on student grievances (Faculty Handbook D175 and D176), academic dishonesty (FH D100), and respectful campus (FH CO9). These are in the *Student Pathfinder* (<u>https://pathfinder.unm.edu</u>) and the *Faculty Handbook* (<u>https://handbook.unm.edu</u>). Please ask for help in understanding and avoiding plagiarism or academic dishonesty, which can both have very serious consequences.

Support: <u>Center for Academic Program Support</u> (CAPS). Many students have found that time management workshops can help them meet their goals (consult (CAPS) website under "services").

Connecting to Campus and Finding Support: UNM-Valencia has many resources and centers to help you thrive, <u>including opportunities to get involved</u>, <u>mental health resources</u>, <u>academic support including tutoring</u>, <u>resource centers</u>, free food at <u>Valencia Campus Food Pantry</u>, and <u>jobs on campus</u>. Your advisor, staff at the resource centers and I can help you find the right opportunities for you.

UNM Policies: This course falls under all UNM policies for the 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

- <u>UNM Valencia Campus Tutoring Services</u>
 <u>4</u>
- UNM Main Campus CAPS Tutoring Services⁵
- <u>UNM-Valencia Library⁶</u>
- UNM Libraries⁷
- <u>"Life" Resources available to UNM-Valencia Students⁸</u>
- Student Health & Counseling (SHAC) Online Services⁹

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 the 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.

SEMESTER DEADLINES

Summer 2023 – 8-week class

- Monday, June 5: First day of class, classes available in Canvas.
- Friday, June 9: Last day to add a class or to change credit hours or grade mode in LoboWEB.
- Friday, June 9: Last day to drop without "W" grade and with 100% refund on LoboWEB
- Friday, July 14: Last day to drop *without* Dean's permission on LoboWEB. Will receive a "W" grade and will be responsible for tuition for the course.

⁴ <u>http://valencia.unm.edu/campus-resources/the-learning-center/learning-center.html</u>

⁵ <u>http://caps.unm.edu/services/online-tutoring/olc.php</u>

⁶ <u>http://valencia.unm.edu/library/index.html</u>

⁷ <u>https://library.unm.edu/</u>

⁸ <u>http://valencia.unm.edu/students/student-resources.html</u>

⁹ <u>https://shac.unm.edu/</u>

- Thursday, July 27: Last day to add sections and/or change credit hours with form, last day to drop with Dean's permission. Will receive a "W" grade and will be responsible for tuition for the course (required form: <u>http://registrar.unm.edu/forms/enrlauth-latedrope41b.pdf</u>)
- Thursday, July 27: Day of cumulative final exam. Please note that this is an **in-person exam, to be held at UNM Valencia Workforce Training Center**: 1020 Huning Ranch Loop SW, Los Lunas, NM 87031 (specific room TBA).

Course Material and Assignment Schedules

| Week of | Week # | Unit # | Sections Covered/ Online & Written Assignment Due Dates |
|---------|--------|------------|---|
| | | | 13.1, 13.2 |
| 5-Jun | Week 1 | Unit 10 | |
| | | | 13.3, 13.5 |
| | | | Unit 10 Online and Written Homework due Friday, 6/16, |
| 12- Jun | Week 2 | Unit 10/11 | 11:59pm |
| | | | 13.7, 14.7 |
| 19-Jun | Week 3 | Unit 11 | Unit 10 Project due Monday, 6/19, 11:59pm |
| | | | 15.2, 15.3 |
| | | | Unit 11 Online and Written Homework due Wednesday, |
| | | | 6/28, 11:59pm |
| 26-Jun | Week 4 | Unit 12 | Unit 11 Project due Friday, 6/30, 11:59pm |
| 3-Jul | Week 5 | Unit 12 | 15.4, 15.8 |
| | | | 17.2, 17.3 |
| | | | Unit 12 Online and Written Homework due Wednesday, |
| | | | 7/12, 11:59pm |
| 10-Jul | Week 6 | Unit 13 | Unit 12 Project due Friday, 7/14, 11:59pm |
| | | | Unit 13 Online and Written Homework due Wednesday, |
| | | | 7/19, 11:59pm |
| | | Catch-Up | Unit 13 Project due Friday, 7/21, 11:59pm |
| 17-Jul | Week 7 | & Review | |
| | | Review & | Final Exam to be taken in-person at UNM Valencia |
| 24-Jul | Week 8 | Exam | Workforce Training Center, Thursday, 7/27 at 2:00pm |

Written Homework Problems:

These are problems that you should complete on your own paper from the e-book. You will submit all listed problems for a given unit as a single assignment (i.e. there are 10 total problems for Unit 10, 10 total problems for Unit 11, 11 total problems for Unit 12, and 10 total problems for Unit 13).

| Unit 10 | 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 |
| Unit 11 | Sect. 13.5: (pg. 920) #32,73, 87 |
| | Sect. 13.7: (pg. 941) #30, 41, 43, 49, 51 |
| | Sect. 14.7: (pg. 1042) #65, 91 |
| Unit 12 | 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, 55, 99 |
| Unit 13 | Sect. 17.2: (pg. 1252) #59, 71, 75, 81, 93 |
| | Sect. 17.3: (pg. 1266) #29, 37, 93, 94, 125 |