



Syllabus-Spring 2022

Title of Course-Section:	MATH 1220-553 (College Algebra)
Name of Department:	Mathematic, Engineering, & Computer Science
Instructor:	Andisheh Dadashi, Assistant Prof. of Mathematics
E-Mail:	andisheh@unm.edu
Class Meeting Days/Times:	No scheduled lecture
Credit Hours :	3 credit hours
Class Location:	
Office Location:	A 105
Office Hours:	Tuesdays and Thursdays: 12 pm to 14:30 pm or by appointment

Note: The instructor reserves the right to change the syllabus at any point of time during the semester.

Get to know your instructor:

Andisheh Dadashi earned her bachelor's degrees in Mathematics and Statistics from a ranked university in her native Iran. After finishing her undergraduate degrees, she studied abroad in India where she earned her first Master's degree in Statistics. She later moved to the USA to pursue a Ph.D. in Statistics at the University of New Mexico (UNM) and in 2016, she was offered a faculty position as a visiting Lecturer II at UNM-Gallup after receiving her second Master's degree in Statistics.

Andisheh is a strong advocate of higher education and is following her mother's footsteps who was also a University professor in Iran. Because STEM education is becoming increasingly interdisciplinary, Andisheh sought to complement her background in mathematics and statistics with computer science and is eager to integrate data science into her curriculum. Andisheh is currently working on a Ph.D. in computer science and her research includes astrobiology and biomedical informatics while concurrently teaching mathematics, statistics, and computer programming at UNM-Valencia.

To know **Andisheh** watch this video [Click on this link](#)

**** Email ****

In subject of your email to me, please mention your course name, number, and section number. For example, the subject of your email to me should be: **MATH 1220-553**

You must only contact me with your **UNM e-mail**. Check your **UNM email frequently**. You are responsible for missing any announcement I sent via email or UNM Learn. Failure to identify your message with the class number, and not using your UNM email will result in no response at all.

- [Learning Objectives and Outcomes](#)
- [Course Outline - eBook - Package \(Pearson\)](#)
- [Where to purchase Access Code for the Pearson](#)
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What is College Algebra

The study of equations, functions and graphs, reviewing linear and quadratic functions, and concentrating on polynomial, rational, exponential and logarithmic functions. Emphasizes algebraic problem solving skills and graphical representation of functions.

Learning Objectives and Outcomes

Pre-requisites/Co-requisites: Grade of C or better in MATH 1215X and 1215Y and 1215Z or MATH 1170 + MATH 1215Z or MATH 1215, or minimum ACCUPLACER score of ≥ 239 (A&F) or math ACT score of ≥ 22 , or math SAT score of ≥ 540 .

Students will build on their knowledge of polynomial, rational, absolute value, radical, exponential and logarithm functions in the following contexts:

- Use function notation; perform function arithmetic, including composition; find inverse functions.
- Identify functions and their transformations given in algebraic, graphical, numerical, and verbal representations, and explain the connections between these representations.
- Graph and interpret key feature of functions, e.g., intercepts, leading term, end behavior, asymptotes.
- Solve equations algebraically to answer questions about graphs, and use graphs to estimate solutions to equations.
- Solve contextual problems by identifying the appropriate type of function given the context and creating a formula based on the information given.
- Communicate mathematical information using proper notation and verbal explanations.

Evaluation/Grading Methods

Your final grade in this class is based on the following components:

Written Assignments	40 %
Midterm	20 %
Final Exam	20 %
Overall	80 %

This will account for the 80% of your overall grade. The rest of your grade (20%) will be from your teacher at your school. This 20% from your teacher includes all the work that your teacher assigns to you.

Overall Grade and Letter Grade

Passing grade in this course is 70% or better.

In order to pass this course your grade on the final exam must be 70% or better.

Overall Grades: pluses and minuses may or may not be added to letter grades at the instructor's discretion. Grades of A+ are not rare and will only be awarded for exceptional work.

Grade	From	To	Grade	From	To	Grade	From	To
A+	98	100	B+	88	89.99	C+	78	79.99
A	93	97.99	B	83	87.99	C	70	77.99
A-	90	92.99	B-	80	82.99	D	60	69.99

Where do you find your grade?

In Pearson: On the left side of the main page you will see an option named "Grade Book". Your Up to dated grade can be find in your grade book

eBook

Book and Package: College Algebra 2e from OpenStax.org (e-book).

Online Assignments

Your homework are posted on UNM Learn.

Exams

Your exams will be posted on UNM learn.

Calculator

Scientific calculator may be necessary. No calculators will be allowed on any of the exams (including the final).

Teaching Materials

Where can you find the materials for this class?

- a. You can find my lectures note/ Pdf in the Notes folder on UNM Learn.
- b. There are some PowerPoint and image and clicker slides on the home page of Pearson provided by publisher you may find useful. You can find them all in the resource section on the homepage.
- c. UNM Mathematics and Statistics department has provided the past exams for you which is similar to the exams we have in this course. [Click Here!](#)
- d. There are Math videos provided by publisher for each chapter. These videos will help you to enhance your learning.
- e. Study Plans are the best resource to practice the chapter content. It shows you the weakness or strength in a certain section of a chapter. It will give you more questions from the section that you need to work on more. Study Plans are accessible on Pearson's homepage.
- f. There are many study plans and videos under "Tools for Success" and "Skills for Success" and "Algebra review" in Pearson. You should go through all these options to find which one is the most helpful for you.

Support!

If you have a documented disability, the Equal Access Services office will provide me with a letter outlining your accommodations. I will then discuss the accommodations with you to determine the best learning environment. If you feel that you need accommodations, but have not documented your disability, please contact Cheryl Dilger, the coordinator for Equal Access Services at 925-8910 or cdilger@unm.edu.

If you are struggling in this course, do not be afraid to ask for help!

- Office Hours: See my office hours listed at the beginning of this syllabus. "[Office Hours](#)" 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 on UNM Learn.
- 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. "[LRC](#)"
- Student Services: There are various services provided in our Student Services Department. Read about "[ARC](#)" equal access Services. Also, we have a testing center, advising, and career placement available: Valencia Student Services

Academic Dishonesty

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: [Click Here!](#)

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.

Cheating students will be prosecuted according to University guidelines. Students should get acquainted with their rights and responsibilities as explained in the Student Code of Conduct [Click Here!](#)

StudentBehavior & CollegialBehavior

According to the Code of Conduct as stated in the Policies and Regulations for UNM, student activities that interfere with the rights of others to pursue their education or to conduct their University duties and responsibilities will lead to disciplinary action.

This includes any activities that are disruptive to the class and any acts of academic dishonesty. Students are expected to behave in a courteous and respectful manner toward the instructor and their fellow students. Students may be dropped from a class for inappropriate behavior. For more information: [Click Here!](#)

Since we assume you are all adults, we will expect from you, respectful adult behavior. Engaging in disruptive or unruly behavior could result in your being asked to leave, at which time you will be counted absent and a referral will be sent to the Associate Dean of Student Services. Continuing to behave in this way could result in your being dropped from the course. Disruptive or unruly behavior includes but is not limited to:

- texting or talking on your cell phone or Laptop at any time during class,
- continually talking with your neighbor when we are not working on a group activity,
- working on homework from another class,
- reading material or watching media on a mobile device not related to this course or at a time that is inappropriate,
- refusing to participate in the class activities.

UNM Valencia Title IX Representative

Title IX (9) Statement: 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 (see pg. 15 - <http://www2.ed.gov/about/offices/list/ocr/docs/qa-201404-title-ix.pdf>). 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 (oeo.unm.edu). For more information on the campus policy regarding sexual misconduct, see: [Click Here!](#)

Students Responsibility

EXPECTATIONS: Students are expected to conduct themselves in a polite, courteous, professional and collegial manner. Cell phones must be set on silent and be out of sight during class. No food or drink is allowed in the computer labs.

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.

You are responsible for all material covered in this Syllabus and in class, in assigned readings, and on homework assignments. Not all material on tests will necessarily be covered in class but will be in the assignments. The use of cell phones, headphones, etc. is not permitted in class or exams.

Disabilities Policy: (ARC)

Contact Equal Access Services at 925-8560 to schedule an appointment.[Click Here!](#)

The Center for Academic Learning

The Learning Center is open Monday – Friday with evening hours Monday – Thursday To schedule an appointment or for additional information call (505)-925-8907 [Click Here!](#)

UNM Valencia Registrar's Office

Contact Registration Office by calling 925-8580 [Click Here!](#)

UNM Deadlines & Academic Calendar

UNM Deadlines:[Click Here!](#)*And....* **Academic Calendar:**[Click Here!](#)

Library

We have a library at UNM-Valencia. You should already know where the library is.

COVID-19 policy at UNM

UNM Administrative Mandate on Required Vaccinations: UNM requires COVID-19 vaccination and a booster for all students, faculty, and staff, or an approved exemption (see: UNM Administrative Mandate on Required Vaccinations). Proof of vaccination and booster, or a medical, religious, or online remote exemption, must be uploaded to the UNM vaccination verification site. Failure to provide this proof may result in a registration hold and/or disenrollment for students and disciplinary action for UNM employees. **Booster Requirement:** Individuals who received their second dose of a Pfizer or Moderna vaccine on or before June 15, 2021, or their single dose of a Johnson Johnson vaccine on or before October 15, 2021, must provide documentation of receipt of a booster dose no later than January 17, 2022. Individuals who received their second dose of a Pfizer or Moderna vaccine after June 15, 2021 or who received their single dose of Johnson Johnson after November 15, 2021 must provide documentation of receipt of a booster within four weeks of eligibility, according to the criteria provided by the FDA (6 months after completing an initial two- dose Moderna vaccine, 5 months after completing the Pfizer sequence, and 2 months after receiving a one-dose Johnson and Johnson vaccine). **New UNM COVID-19 requirement in Indoor Spaces:**<https://bringbackthepack.unm.edu/vaccine/vaccine-requirement.html> The instructor will try to have a few disposable masks available in the classroom on a first-come, first-served basis.

In addition to the course learning objectives listed above, because this class meets a UNM General Education Core Curriculum requirement, activities in each unit (i.e.: discussions, assignments, and assessments) are developed so that you can demonstrate development of these essential skills:

Critical Thinking

- o Problem Setting: Delineate a problem or question to be considered critically.
- o Evidence Acquisition: Identify and gather the information/data necessary to coherently address the problem or question.
- o Evidence Evaluation: Evaluate the information given by sources for credibility (e.g. bias, reliability, validity) and probably truth.
- o Reasoning/Conclusion: Develop conclusions and outcomes that reflect an informed, well-reasoned argument.

Communication

- o Genre and Disciplinary Conventions: Use formal and informal rules/registers appropriate for the particular audience, community, purpose, context, and kind of text and/or media at hand; use them to guide formatting, organization, and stylistic choices are present.
- o Strategies for Understanding and Evaluating Messages: Apply strategies such as reading/analyzing for main points or themes; recognizing the variety of rhetorical situations and accompanying strategies that may contextualize messages; locating supportive documentation for arguments to understand and evaluate messages in terms of the rhetorical situation.
- o Evaluation and Production of Arguments: Recognize and evaluate the authority of sources in their own arguments and those of others; distinguish among supported claims, unsupported claims, facts, inferences, and opinions.

Quantitative Reasoning

- o Communication and/or Representation of Quantitative Information: Express quantitative information symbolically, graphically, and in written or oral language
- o Analysis of Quantitative Arguments: Interpret, analyze and critique information or a line of reasoning presented by others
- o Application of Quantitative Models: Apply appropriate quantitative models to real-world or other contextual problems

These are the topics that we are going to learn in this semester.

Chapter F:

F.1 (Distance/Midpoint) & F.2 (Intercepts) & F.4 (Circles)

Chapter 1:

1.1 (Functions) & 1.2 (Graph of a Function) & 1.3 (Properties of Functions) & 1.4 (Library of Functions/Piecewise Defined Functions) & 1.5 (Transformations)

Chapter 2:

2.1 (Linear Functions) & 2.3 (Quadratic Functions) & 2.4 (Properties of Quadratic Functions) & 2.5 (Quadratic Inequalities) & 2.6 (Quadratic Models) & 2.8 (Absolute Value)

Chapter 3:

3.1 (Polynomial Functions) & 3.4 (Rational Functions) & 3.5 (Graph of a Rational Function) & 3.6 (Polynomial and Rational Inequalities)

Chapter 4:

4.1 (Composite Functions) & 4.2 (Inverse Functions) & 4.3 (Exponential Functions) & 4.4 (Log Functions) & 4.5 (Properties of Logs) & 4.5 (Log and Exponential Equations) & 4.7 (Financial Models) & 4.8 (Exponential Growth and Decay)

Chapter 6:

6.1 (Systems of linear equations (Substitution and Elimination))

Math 1220 Schedule Spring 2022

Day of Math 1220 Schedule (subject to change if necessary)

First day of semester: January 17th & Last day of semester: May 14th
Spring Break: March 13th to 20th & Final Exams: May 9th to 14th

F1-F.2 (Distance/Midpoint/Intercepts)

F.3 (Lines)

F.4 (Circles)

1.1 Functions

1.2 (Graph of F^n) & 1.3 (Properties F^n)

1.4 (Library of F^n) & 1.4 (Piecewise)

1.5 (Transformations)

1.5 (Transformations)

2.1 (Linear) & 2.3 (Quadratic Zeroes)

2.4 (Properties of Quadratic)

2.5 (Quadratic Inequalities)

2.6 (Quadratic Models) & 2.8 (Abs Value)

Written Assignment 01 due on Thursday March 03rd, 8 am

Midterm on Thursday March 03rd

3.1 (Polynomials)

3.4 (Rational)

No Topic: Break: March 13 to 20

No Topic: Break: March 13 to 20

3.5 (Graph of a Rational Function)

3.6 (Rational Inequalities)

4.1 (Composition)

4.2 (Inverses)

4.3 (Exponential)

4.4 (Log Functions)

4.5 (Properties of Log)

4.6 (Log)

4.6 (Exponential Equations)

4.7 (Financial Models)

4.8 (Exponential Growth and Decay)

Written Assignment 02 due on Thursday May 12th, 8 am

Cumulative Final Exam on Thursday May 12th