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COURSE DESCRIPTION: Math 119: Algebra Stretch II. (4) This course covers approximately the last half of Math 120. Topics covered include rational expressions, rational exponents, and roots, quadratic expressions, and equations, functions and logarithms. Both Math 118 and Math 119 must be completed to count as the equivalent of Math 120. Prerequisite: Math 118.

STUDENT LEARNING OUTCOMES:

Upon successful completion of the course;

1. **Communication:** Students will use proper mathematical notation and terminology to communicate mathematical phrases. **Addresses UNM/HED Area II: Mathematics (Algebra Competencies) #3**
 2. **Solve various kinds of equations:** Students will solve a variety of equations from linear equations, systems of two linear equations, to polynomial equations. **Addresses UNM/HED Area II: Mathematics (Algebra Competencies) #2**
 3. **Working with functions:** Students will correctly use function notation and be able to find the value of function for a given domain. **Addresses UNM/HED Area II: Mathematics (Algebra Competencies) #3**
 4. **Working with graphs:** Students will sketch graphs of linear functions. **Addresses UNM/HED Area II: Mathematics (Algebra Competencies) #1**
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5. **Modeling and solving applied problems.** Students will use formulas and equations to solve real-world problems.

REQUIRED MATERIALS:

- **There is NO required textbook for the course. It will all be electronic and you will need internet access to complete the course.**
- Pencil(s)
- **HEADPHONES.** This will be a self-paced course and there are lots of video learning aids embedded in the course. You will be able to watch these videos at your own time and will need headphones as to not disturb the other students.
- A notebook with paper (either a spiral or a binder would be fine).
- A calculator is not required, but strongly recommended. You may not use a graphing calculator but you may use a scientific calculator. You may NOT use your phone as a calculator during any quiz or test.

Student Learning Outcomes in regard to skills acquisition: Upon successful completion of Intermediate Algebra, students will be able to:

1. Sketch the graphs of linear, quadratic, and exponential functions. (118/119/120)
2. Solve systems of two linear equations. (118/119/120)
3. Solve quadratic equations using factoring, quadratic formula, and the square root method. (119/120)
4. Solve equations containing rational expressions. (119/120)
5. Solve polynomial equations by factoring. (119/120)
6. Correctly use function notation and vocabulary related to functions. (118/119/120)
7. Find the value of a function for a given domain value. (118/119/120)

Course Overview (MATH 118/119/120): This is a pilot course at UNM, which means that we are trying a different instructional method for a few courses at the college. This course will be using iLearn software. iLearn is software that includes videos, practice, and assessments focusing on mastery learning and individualized instruction (also referred to as self-paced instruction). The class will be held in a computer lab. Students will start by taking a test that will develop each student's own *learning path* for the semester. You will be able to test out of material that you "mastered" on the test and spend your time focusing on the topics that you need practice. The instructor's role for this course will be as a tutor and mentor. There will be more time in the class to work with students one on one or in small groups since there will be no lecture in the class. Besides this benefit, students will also be able to work through the material at their own pace and not have to move together at the same pace as with a traditional class. A challenge for students with this type of course is that students need to be self-motivated and self-disciplined. Students will not be able to come to class and listen to a lecture to learn the material. Students will instead have to set their own pace and take the initiative to access the instructional resources in the software to start the learning process. Also, besides taking the final at the end of the semester, there are no strict deadlines within the course, although suggested deadlines will be provided to give you an idea of how to pace yourself.

Mastery Learning: In a mastery-based class, gone will be the times you can simply skip material you find difficult or confusing. In the past you may have been able to skip the word problems in an assignment or on a test or, if a concept was difficult for you to grasp, you were able to guess answers and receive partial credit. With mastery-based learning, however, in order to complete a module you must pass a test. That means you have to know what you are doing every step of the way.

Individualized Instruction: In an individually-paced class you complete the material at a pace determined by how prepared you are and how quickly you learn the concepts. For some people this is ideal: no more feeling rushed to understand a difficult concept, or, no more having to sit in class bored because you already understand. However, due to the fact that

Math 119 iLearn/Trigsted Syllabus

there is a deadline by which you must be prepared for the final, individually-paced isn't quite as low-stress as you may hope. You will be given deadlines by when you should complete each module. These deadlines are set so that you can finish the course in time to take the final exam. If you can whiz through the earlier material so that you have more time to focus on the later, usually more difficult, concepts, this is great! If you end working through at a much slower rate than the calendar suggests, struggling with each new concept, you will need to spend much more time on the work in order to finish.

Modules: The class material is broken down into "modules," which just refers to the different topics from the course. You will work on the modules in class, in labs on campus and at home. Here are the options:

To complete Math 118 you will need to follow your learning path and complete up to Level 7: T-3, Solutions to Linear Inequalities in One Variable and pass the final exam with the minimum score of 70%.

To complete Math 119/Math 120 you will need to follow your learning path and complete up through Level 8:Y3 Solving Quadratic Equations using the Quadratic Formula. You must also complete a paper and pencil assignment on Logarithmic and Exponential Functions and pass the comprehensive Math 120 final exam with a minimum score of 70%.

The main modules that you will be completing, although this will vary for everyone based on your pretest and the areas that you need to review are;

- Graphing Linear Equations in Two Variables *
- More Graphing *
- Linear Equations in Two Variables *
- More Linear Equations *
- Writing Linear Equations *
- Exponent Operations *
- More Exponent Operations *
- Polynomials *
- Polynomials and Greatest Common Factors *
- Multiplying Polynomials*
- Factoring Trinomials – 3 sections *
- Systems of Linear Equations *
- Linear Inequalities *
- Solutions to Linear Inequalities in One Variable *
- Applications I, II, III, IV *
- Rational Expressions (119)
- Operations with Rational Expressions(119)
- Operations and Equations with Rational Expressions (119)

Math 119 iLearn/Trigsted Syllabus

Radicals (119)
More Radicals(119)
Scientific Notation(119)
Functions(119)
Solving Quadratic Equations(119)
Graphing Quadratic Equations(119)
Solving Equations with Radicals(119)
Solving Equations by Completing the Square(119)
Solving Equations using the Quadratic Formula(119)
Exponential and Logarithmic Functions(119)

Each module with a "" means that is a module for Math 118. All the other modules are only for Math 119 and 120.

ATTENDANCE POLICY: While most of the work will be done online and can be completed at home, it is still important that you attend class. In class, you will be able to work with the instructor and your other classmates. There will also be some activities and paper and pencil exams in the class. If you miss 2 consecutive classes without contacting the instructor, you will be dropped from the class. If you miss 4 total classes you may be dropped from the course. No exceptions. If you even know you will need to miss a class for any reason, it is always best to contact the instructor immediately. Attendance will be part of the grade for the class. If you are in class, you are expected to be working in iLearn. If you are not, it will be counted as an absence. If you miss one day, your attendance grade will not go down. But if you miss 2 days your attendance grade will go down to 80%. If you miss 3 days your attendance grade will go down to 70%.

UNM's Policy on Dishonesty in Academic Matters: 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, including dismissal, against any student who is found responsible for academic dishonesty. Any student who has been 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 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; and misrepresenting academic or professional qualifications within or outside the University.

Disability Statement: If you have a documented disability, please provide me with a copy of your letter from Equal Access Services as soon as possible to ensure that accommodations are provided in a timely manner.



GRADING SCALE:

Completed Modules	40%
Attendance and Class Participation	10%
Activities	10%
Midterm	10%
Cumulative Final Exam*	30%

Grading Scale

A	90 – 100%
B	80 – 89%
C	70 – 79%
D	60 – 69%
F	< 59%

*** You must receive at least a 70% on the final to pass the course***