

# **Course Syllabus**

- Course Number: MATH211L
- Course Title/Modality: College Algebra-Online
- Credit Hours: 4
- Semester: Fall 2024
- Faculty Name: Julie Morin
- Email Address: jmorin@ccsnh.edu
- Office Location: Turner Building 208a, (at the back of 208)
- Office Hours: Monday 12:30-2:00 (Online); Tues & Wed. 12:30-2:00 Sometimes additional time or one-on-one assistance is needed. The instructor is normally available during the conference hours listed above, or you may make an appointment with the instructor for other times.
- **Prerequisites:** LMAT1420 or MATH1420L (or equivalent) with a grade of C or better, or competence demonstrated on math placement exam.
- Course Description: This is a comprehensive course that includes the graphs and solutions of linear, radical, and quadratic equations; graphs and solutions of linear, compound, absolute value, and nonlinear inequalities; systems of equations in 2 and 3 variables; rational exponents; an introduction to trigonometry. A grade of C or better must be achieved in this class to use it as a prerequisite for a subsequent class here at the College.
- Text/Instructional Materials and Equipment Required: OpenStax texts, <u>Intermediate Algebra 2e</u> and <u>Algebra and Trigonometry 2e</u> will be used. These texts are open educational resources; students will have links to online and print versions in Canvas. Access to Lumen OHM (Low Cost-approx. \$40), a graphing calculator, and technology (laptop or computer) to effectively use OHM. Each are described below:
- Lumen OHM is only available from our campus bookstore. Temporary free access is available for 14 days. See Canvas course site for access code details.
- A **graphing** calculator is required such as TI-83 or higher model (May use free online calculators such as Desmos; although handheld is typically most convenient.)
- While Canvas and OHM are available on handheld devices, students are expected to have reliable access to a computer with high-speed internet access to complete course work. Lumen OHM is optimized for the latest and second latest version of the major browsers.
- For technical support with Lumen email <u>support@lumenlearning.com</u>; for Canvas or LRCC accounts email <u>LRCCITSupport@ccsnh.edu</u>

• **Grading:** Course grade will be determined using the following percentages:

Practice Sets/Homework	40%	Ď
Quizzes	20%	, D
Exams	40%	, D

**Practice Sets/Homework** - The homework is set up so that students can attempt each problem multiple times to demonstrate mastery. You have unlimited attempts on these homework problems up until the due dates. **One low grade will be dropped in this category.** 

Weekly Review Quizzes will be given, and two attempts are allowed on each quiz. The higher grade is the one that will be counted in the final course grade. One low grade will be dropped in this category.

There are 3 Unit Exams that cover multiple chapters and a comprehensive Final Exam. One attempt is allowed on each exam. All exam grades are included in the final course grade.

Attendance/Participation and Late Work Policy: Weekly completion of assignments is critical to student success. It is my expectation that you will complete work each week according to the schedule posted in Canvas. If an absence is unavoidable, contact me as soon as you possibly can via email, Canvas message or phone. I will do my best to help you determine how to stay on track in the course. Each student has been given 5 Late Passes within Lumen OHM. A Late Pass enables access to an assignment past the due date. Late work will only be accepted for two weeks past the due date; after that time has passed a 0 will be entered in the gradebook.

**Extended absence may result in removal from the course.** If you miss class for 2 consecutive weeks and do not contact me within that 2-week timeframe I will notify our campus counselor who may reach out to you. If after 2 weeks you do not contact me, I will remove you from the course and record a grade of AF (Academic Failure). Note that an AF may affect financial aid. Therefore, it is critical for you to maintain communication with the instructor so that if you encounter difficulties, I can help you to make an informed decision regarding withdrawal or participation.

Grading Scale:

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Α	93-100	В	83-86	С	73-76	D	63-66
A-	90-92	B-	80-82	C-	70-72	D-	60-62
$B^+$	87-89	C+	77-79	D+	67-69	F	0-59

Course Learning Outcomes/Competencies: At the conclusion of this course, the student will be able to:

- 1. Solve complex linear equations
- 2. Solve compound and absolute value inequalities
- 3. Evaluate and graph linear functions using multiple methods
- 4. Find the equation of a line
- 5. Graph the solution of inequalities in 2 variables
- 6. Solve systems of equations in 2 and 3 variables algebraically
- 7. Use integral exponents and scientific notation
- 8. Perform basic operations on polynomial expressions (including long division)
- 9. Factor complex polynomial expressions, including the difference of two cubes
- 10. Find the domain of rational expressions
- 11. Perform operations on rational expressions
- 12. Simplify complex algebraic rational expressions
- 13. Solve problems containing rational functions
- 14. Solve problems containing rational exponents
- 15. Simplify and perform multiple operations on radical expressions, including rationalizing the numerator or denominator
- 16. Solve problems containing complex numbers
- 17. Solve radical equations
- 18. Solve quadratic equations by formula, factoring, or completing the square
- 19. Graph quadratic functions using vertical and horizontal shifts
- 20. Use the basic three trigonometric functions to solve problems involving right triangles

#### • Academic Integrity, Cheating, and Plagiarism

Honesty is expected of all LRCC students. In academic matters this includes the submission of work that clearly indicates its sources. Dishonest acts include cheating and plagiarism, as well as other forms of academic misconduct.

**Cheating** is defined as copying or otherwise using material from others, or using sources not approved by faculty.

**Plagiarism** is defined as using the work (ideas, words, artwork, etc.) of another person as one's own. The failure to cite sources or the extensive use of others' work in written material are the most common types of plagiarism.

Cheating, plagiarism, and other forms of academic misconduct are considered serious disciplinary matters and are subject to the same penalties and procedures as other LRCC disciplinary matters. Students should be aware that penalties levied in substantiated cases of cheating or plagiarism may include, but are not limited to, the issuance of a grade of F, which may in turn lead to delay of graduation. Repeated offenses may lead to dismissal from a program or from the college.

Refer to the Academic Honesty Policy in the Student Handbook.

#### **Diversity, Equity, and Inclusion Statement**

The content of this course is designed to challenge your viewpoints and perspective as part of your learning experience. It is my intent that students from all backgrounds and perspectives are well-served by this course. Students' learning needs will be addressed both in and out of class, and the diversity of students will benefit the class and will be considered a resource and strength. Materials and activities presented in class will respect diversity including gender identity, sexuality, disability, age, socioeconomic status, ethnicity, race, nationality, religion, and culture.

- Discuss privately with me if you feel your success in the class is being impacted by experiences outside of class. I am always open to listening to students' experiences and want to find acceptable ways to process and address the issue.
- If you feel that something offensive occurred regarding DEI topics in class (by anyone) that made you feel uncomfortable, please let me know.
- Please tell me if you have a name and/or set of pronouns different from those on your official records.
- I encourage you to seek out other resources, such as an academic advisor or another trusted faculty member, if you feel more comfortable addressing issues with these individuals. <u>Anonymous</u> <u>feedback can be submitted here.</u>

I hope this course meets your expectations as a challenging, engaging, and respectful learning experience. If you find this not to be the case, I welcome the opportunity to address your concerns. This is not only a courtesy; it is a matter of process and procedure. Should we fail to arrive at a mutually satisfactory understanding, you should take the matter to my immediate supervisor, Matt Simon at msimon@ccsnh.edu.

## College Algebra (MATH211L)– Class Schedule Fall 2024 - 100% ONLINE

Week	Date	Topics	Assignments/Assessments	Targeted Outcomes
1	August 26- August 30	Course Orientation Review prerequisite skills as needed	Complete Getting Started Module, Read Syllabus, Set up Access to Lumen OHM, Complete OHM Student Assignment Tutorial Week 1 Quiz	
2	August 31- September 6	Solving Linear and Absolute Value Equations, Multi-step Inequalities and Compound Inequalities	Readings: OpenStax 2.1-2.7 Practice Problems: Multi-Step Linear Equations, Problem Solving, Single and Multi-Step Inequalities, Compound Inequalities Week 2 Quiz	1, 2
3	September 7- September 13	Graphing Linear Equations, Writing equations of lines	Readings: OpenStax 3.1-3.3 Practice Problems: Graph Linear Equations, Week 3 Quiz	3, 4
4	September 14- September 20	Function Notation and Graphs of Linear Functions and Linear Inequalities	Unit 1 Exam Readings: OpenStax 3.4- 3.6 Practice Problems: Graph Linear Inequalities, Functions and their Notation, Graphs of Functions, Domain and Range Week 4 Quiz	1-5
5	September 21- September 27	Systems of 2 and 3 Linear Equations and Linear Inequalities	Readings: OpenStax 4.1-4.7 Practice Problems: Solve Systems in 2 Variables, Systems of Equations in 3 Variables, Systems of Linear Inequalities Week 5 Quiz	6
6	September 28 - October 4	Properties of Integral Exponents and Scientific Notation	Unit 2 Exam Readings: Open Stax 5.2 Practice Problems: Exponent Rules, Scientific Notation Week 6 Quiz	6, 7
7	October 5- October 11	Polynomials and Polynomial Functions	Readings: Open Stax 5.1, 5.3, 5.4 Practice Problems: Algebraic Operations on Polynomials, Polynomial Functions Week 7 Quiz	8
8	October 12- October 18	Factoring and Polynomial Equations	Readings: Open Stax 6.1-6.5 Practice Problems: Factor Trinomials, Special Cases, Polynomial Equations Week 8 Quiz	9
9	October 19- October 25	Rational Expressions and Equations	Readings: Open Stax 7.1-7.5 Practice Problems: Operations on Rational Expressions, Rational Equations Week 9 Quiz	10-13
10	October 26- November 1	Introduction to Roots and Radicals	Unit 3 Exam Readings: Open Stax 8.1 – 8.3 Practice Problems: Simplify Expressions with Roots and Rational Exponents Week 10 Quiz	14
11	November 2- November 8	Operations on Radical Expressions and Solving Radical Equations	Readings: Open Stax 8.4 – 8.7 Practice Problems: Algebraic Operations with Radical Expressions, Radical Equations Week 11 Quiz	15, 17
12	November 9- November 15	Quadratic Equations and Complex Numbers	Readings: Open Stax 8.8, 9.1-9.7 Practice Problems: Quadratic Equations, Imaginary and Complex Numbers, Classify Solutions to Quadratic Equations Week 12 Quiz	16, 18, 19

### Always refer to Canvas for the most up-to-date list of assignments.

13	November 16- November 22	Right Triangle Trigonometry	Readings: Practice Problems: Week 13 Quiz	20
14	November 23- November 29		Unit 4 Exam	
15	November 30- December 6		Course Review	
16	December 7 December 13		Final Exam	