



Passaic County Community College  
Academic Year: 2023-2024  
Standard Syllabus

Department Chair: Janet Delaney  
Program Coordinator: Kristina Fleming

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**Course Code:** MA 108

**Course Title:** College Algebra

**Department:** Mathematics

**Semesters Offered:** Fall, Spring, Summer

**Course Description:** This course covers the study and application of the concept of sets, relations, functions, and the real number system. Topics include polynomials, rational expressions, and radicals. Emphasis is placed on solving polynomial and rational equations as well as linear systems, and graphing linear, quadratic, exponential, logarithmic, and rational functions.

**Prerequisites:** MA 025 or MA025B or TEST PLACEMENT

**Corequisite:** MA 080

**Credits:** 3

**Lecture Hours:** 3

**Lab/Studio Hours:** 0

**Clinical/Fieldwork Hours:** 0

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**Required Textbook/Materials:** College Algebra, by Lial, Hornsby, Schneider, and Daniels; *\*Some sections of the course may use Open Educational Resources*

**Additional Time and Supplemental Requirements:** Based on a 15 week semester, students are required to spend an additional 6 hours per week on assignments outside of class time.

**Course Learning Outcomes:** Upon successful completion of this course, students will be able to:

1. Solve systems of linear equations by multiple methods (graphing, substitution, and addition methods; and by Cramer's Rule and matrices).
2. Perform operations on algebraic expressions with an emphasis on: rational, radical, and logarithmic expressions, and complex numbers.
3. Identify and solve linear and non-linear equations and inequalities with an emphasis on linear, quadratic, rational, polynomial, and square root; and exponential and logarithmic.
4. Identify and analyze functions with an emphasis on: linear, quadratic, constant, rational, and square root; and exponential and logarithmic.
5. Communicate accurate mathematical terminology and notation in written and/or oral form in order to identify function models to solve problems and interpret found solutions.

**General Education Outcomes:** Upon successful completion of this course, students will be able to:

1. Students will translate quantifiable problems into mathematical terms.
2. Students will use arithmetic, algebraic, geometric or statistical methods to solve problems.

**Grading Standard:**

Final evaluation of class performance will be based on the following:

Participation	5%
Homework	10%
Tests	60%
Final Exam	25%
Total	100%

*\*Subject to change or could vary slightly by course section*

**Course Content:** (Schedule and suggested topics, readings, and assignments subject to change based on instructor and instructional resource)

- Review of Rational Expressions, Rational Exponents, and Radical Expressions
- Equations and Inequalities
- Graphs and Functions
- Quadratic Functions
- Exponential and Logarithmic Functions
- Systems and Matrices

**Department Policies:**

**ACADEMIC HONESTY POLICY** – The Mathematics department at Passaic County Community College highly values the honesty and the integrity of each student while helping them to pursue their academic goals. All students must abide by the following academic honesty policy. Students are expected to be honest and ethical at all times in their completion of any coursework. Any dishonesty will not be tolerated in this course. This includes, but is not limited to, cheating, plagiarizing, facilitating acts of academic dishonesty by others, having unauthorized possession of examinations, submitting work of another person, or obtaining solutions from any website or outside source. Students who are found to be dishonest will receive academic sanctions, such as an "F" grade on the assignment or exam, and the instructor will reserve the right to report the incident to the Academic Affairs Office for possible further disciplinary action.

**CALCULATOR POLICY** – Scientific calculators and graphing calculators without symbolic operations ability are permitted in this course. Therefore, permitted graphing calculators include TI-83, TI-83 Plus, and TI-84. TI-84 Plus and higher (including the TI n-spire) calculators are not permitted. Cell phone calculators are also not permitted. The instructor reserves the right to limit the use of the calculator on certain course assessments.

**College Policies:** For Information regarding:

- PCCC's Academic Integrity Code
- Student Conduct Code
- Student Grade Appeal Process

Please refer to the PCCC Student Handbook and PCCC Catalog

**Panther Alert:** The College will announce delayed openings, closings, and other emergency situations through the Panther Alert System. Students are encouraged to sign up for Panther Alert Notifications by logging into their student accounts through the PCCC website at [www.pccc.edu](http://www.pccc.edu) and following Panther Alert System instructions.

**Notification for Students with Learnings Disabilities:** If you have a disability, and believe you need accommodations in this class, please contact the Office of Accessibility at 973-684-6395, or email

[ods@pccc.edu](mailto:ods@pccc.edu). You should do so as soon as possible at the start of each semester. If you require testing accommodations, you must remind me (the instructor) one week in advance of each test.