



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

Department Chair: Janet Delaney  
Program Coordinator: Kristina Fleming

---

**Course Code:** MA101

**Course Title:** College Mathematics I

**Department:** Mathematics

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

**Course Description:** This course covers the study and application of the concepts of symbolic logic, sets, finite and infinite mathematical systems.

**Prerequisites:** MA 022 or MA 025 or MA 025A or MA025B or Test Placement

**Credits:** 3

**Lecture Hours:** 3

**Lab/Studio Hours:** 0

**Clinical/Fieldwork Hours:** 0

---

**Required Textbook/Materials:** Mathematical Ideas, by Miller/Heeren/Hornsby; *\*Some sections of the course may use Open Educational Resources*

**Additional Time and Supplemental Requirements:** Based on a 15 week semester, students are expected to spend a minimum of 6 hours outside of class doing homework each week.

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

- Employ strategies for problem solving.
- Perform basic set operations.
- Employ the fundamentals of logic by use of truth tables.
- Convert between different number systems.
- Apply basic number theory.
- Communicate accurate mathematical terminology and notation to explain strategies to solve problems and interpret solutions.
- Use technology correctly to solve mathematical problems.
- Utilize various reasoning, problem-solving, and critical thinking techniques to solve applications.

**General Education Outcomes:**

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)

- The Art of Problem Solving
- The Basic Concepts of Set Theory
- Introduction to Logic
- Numeration Systems
- Number Theory
- The Real Numbers and Their Representations

### **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** – Only scientific or graphing calculators may be used, if permitted by instructor. **CELL PHONE CALCULATORS ARE PROHIBITED!** 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 Services 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.