

**JAMESTOWN COMMUNITY COLLEGE**  
**State University of New York**

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**INSTITUTIONAL COURSE SYLLABUS**

**Course Title:** Applied Math for Technology II

**Course Abbreviation and Number:** MAT 1220

**Credit Hours:** 4

**Course Type:** Lecture

**Course Description:** Students will learn applications for algebra, trigonometry, complex numbers, exponential, sinusoidal and logarithmic functions, vectors, and determinants. Illustrative examples are provided for the electrical, mechanical, computer technology and physics disciplines. This course is designed to meet the specialized needs of technology students and is not recommended for engineering or mathematics majors.

Prerequisite: MAT 0550 MAT 1210, or placement.

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**Student Learning Outcomes:**

Students who demonstrate understanding can:

1. Apply algebraic techniques to solve problems typically seen in technology-related disciplines
  2. Solve equations graphically
  3. Use right-angle trigonometry to solve problems typically seen in technology-related disciplines
  4. Solve systems of linear equations graphically, algebraically, or by the use of determinants
  5. Use vectors to solve problems typically seen in technology-related disciplines
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**Topics Covered:**

- Algebra Review
  - Geometry
  - Functions and Graphs
  - The Trigonometric Functions
  - Systems of Linear Equations; Determinants
  - Factoring and Fractions
  - Quadratic Formula
  - Trigonometric Functions of Any Angle
  - Vectors and Oblique Triangles
  - Graphs of Trigonometric Functions
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**Information for Students**

- Expectations of Students
  - [Civility Statement](#)
  - [Student Responsibility Statement](#)
  - [Academic Integrity Statement](#)
- [Accessibility Services](#)  
Students who require accommodations to complete the requirements and expectations of this course because of a disability must make their accommodation requests to the Accessibility Services Coordinator.
- [Get Help: JCC & Community Resources](#)
- [Emergency Closing Procedures](#)
- Course grade is determined by the instructor based on a combination of factors, including but not limited to, homework, quizzes, exams, projects, and participation. Final course grade can be translated into a grade point value according to the following:

|       |        |     |        |     |        |     |     |
|-------|--------|-----|--------|-----|--------|-----|-----|
| A=4.0 | B+=3.5 | B=3 | C+=2.5 | C=2 | D+=1.5 | D=1 | F=0 |
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- Veterans and active duty military personnel with special circumstances (e.g., upcoming deployments, drill requirements, VA appointments) are welcome and encouraged to communicate these to the instructor.
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**Effective Date:** Fall 2021