

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

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**INSTITUTIONAL COURSE SYLLABUS**

**Course Title:** Essential Mathematics

**Course Abbreviation and Number:** MAT 0530

**Credit Hours:** 5 imputed

**Course Type:** Lecture

**Course Description:** Students will engage in the study of mathematics for everyday life. This course integrates fluency with numbers, proportional reasoning, percentages, basic algebra, and communicating quantitative information. Applications are emphasized throughout to help students improve their basic quantitative reasoning skills. Students will also learn the value of productive persistence in the learning process. This course prepares students to take MAT 1500 - Problem Solving with Mathematics.

No requisites.

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**Student Learning Outcomes:**

Students who demonstrate understanding can:

1. Perform the mathematical skills of arithmetic, order of operations, and solving linear equations in one variable.
2. Apply mathematical problem solving techniques to solve real world applications
3. Synthesize, compare, and integrate the numerical, algebraic, graphical, and verbal representations of quantitative information.

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**Topics Covered:**

- Productive failure/productive persistence and growth mindset philosophy
- Arithmetic of whole numbers, integers, fractions, and decimals, with a focus on concepts over procedure, effective calculator use, and application/problem solving
- Unit analysis
- Algebra basics such as the language of algebra, simplifying expressions, use of formulas, linear equations in one variable, and basics of graphs in the Cartesian coordinate system
- Ratio and proportion applications
- Percentages and applications

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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