

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

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**MASTER COURSE SYLLABUS**

**Course Title:** Precalculus

**Course Abbreviation and Number:** MAT 1600

**Credit Hours:** 4

**Course Type:** Lecture

**Course Description:** Students will learn topics necessary for studying calculus and discrete mathematics. Algebra topics include rational and polynomial functions. Trigonometry topics include graphs, identities, half and double-angle formulas, and inverse trig functions. Other topics include exponential and logarithmic functions, and an introduction to limits. An approved graphing calculator is required.

Prerequisite: MAT1590 (or higher); or as determined by college placement.

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**General Education Requirements Met**

SUNY  
Math

JCC

Professional Requirements

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**Student Learning Outcomes:**

Students who demonstrate understanding can:

1. Analyze and solve problems involving the following concepts, with and without the use of a graphing calculator, and from any of three representations (numeric, algebraic and graphical). [SUNY Gen Ed – Mathematics]
  2. Interpret and draw inferences from mathematical models such as formulas, graphs, tables, and schematics. [SUNY Gen Ed – Mathematics]
  3. Represent mathematical information symbolically, visually, numerically and verbally. [SUNY Gen Ed – Mathematics]
  4. Employ quantitative methods such as, arithmetic, algebra, geometry, or statistics to solve problems. [SUNY Gen Ed – Mathematics]
  5. Estimate and check mathematical results for reasonableness. [SUNY Gen Ed – Mathematics]
  6. Recognize the limits of mathematical and statistical methods. [SUNY Gen Ed – Mathematics]
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**Topics Covered:**

- Equations, Inequalities, and Functions
  - Quadratic Functions and Models
  - Polynomial and Rational Functions
  - Limits and derivatives of functions
  - Exponential and Logarithmic Functions
  - Trigonometric Functions
  - Analytic Trigonometry
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**Information for Students**

- Expectations of Students
  - Civility Statement (<http://www.sunyjcc.edu/current-students/classroom-civility>)
  - Student Responsibility Statement (<http://www.sunyjcc.edu/academics/student-responsibility>)
  - Academic Integrity (<http://www.sunyjcc.edu/faculty-staff/academic-integrity>)
- Disability/Special Services
  - Any student who requires accommodations to complete the requirements and expectations of this course because of a disability should make their needs known to the Coordinator of Accessibility Services, 716.338.1251.
- Emergency Closing Procedures (<http://www.sunyjcc.edu/student-life/campus-safety/jcc-alert>)
- 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 2019