

Pre-Calculus Basics Syllabus

Instructor

Ruoyu Chen

Class Meeting Times:

We will meet on Monday and Thursday of every week from June 20th to August 11th. Class will be held from 1-2 p.m. central time.

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Course Overview

In this Pre-Calculus class, we will learn the principles of Pre-Calculus and how to apply them. This class will prepare you for Pre-Calculus course in school and help you build a foundation for other high school math courses. This course is for students with prior knowledge of Algebra 2.

Materials: Paper, pencil, and a computer.

What We Will be Covering:

Rational Functions and Graphs

Trigonometry

Matrices

Conic Equations and Graphs

Graphing Trigonometric

Functions

Complex Numbers and Polar

Forms

Course Schedule

Class	Subject
Class 1	Functions and Modeling: Graphs of Rational Functions- Domain and Range
Class 2	Functions and Modeling: Graphs of Rational Functions- Transformations and Inverses
Class 3	Functions and Modeling: Graphs of Rational Functions- Inequalities
Class 4	Trigonometry: Angles and Trig. Functions
Class 5	Trigonometry: Graphing Sine and Cosine Functions
Class 6	Trigonometry: Graphing Cosecant and Secant Functions
Class 7	Trigonometry: Graphing Tangent and Cotangent Functions
Class 8	Review
Class 9	Complex Numbers: Performing Operations
Class 10	Polar forms of Complex Numbers and Graphing
Class 11	Matrices: Adding and Subtracting
Class 12	Matrices: Solving equations and Matric Inverses

Class	Subject
Class 13	Conic Equations and Graphs: Parabolas
Class 14	Conic Equations and Graphs: Ellipses
Class 15	Conic Equations and Graphs: Hyperbolas
Class 16	Review