



ALLEN ACADEMY

Pre-Calculus Course Description

2019-2020

Text: *Pre-Calculus with Limits, 4th Edition* (Larson & Battaglia); ISBN 978-1-337-27105-9

First Trimester	Second Trimester	Third Trimester
<p>Objectives:</p> <ul style="list-style-type: none">* To merge the skills from Algebra and Geometry into a unified function analysis approach to mathematics* To define functions, describe characteristics of functions, translate among verbal, numerical, graphical, and symbolic representations of functions	<p>Objectives</p> <ul style="list-style-type: none">* To encompass all previous math knowledge and expand in addition to adding new concepts such as trigonometry in order to achieve a higher level of thinking* To use functions, including trig, and their properties to model and solve real-life problems and solutions	<p>Objectives:</p> <ul style="list-style-type: none">* To continue previous objectives and resolve many math-related problems encountered in life* To prepare students for the rigorous approach used in calculus to unify and reinforce concepts previously presented
<p>Topics:</p> <ul style="list-style-type: none">* Functions (general)* Quadratic, Polynomial, and Rational Functions* Exponential and Logarithmic functions	<p>Topics</p> <ul style="list-style-type: none">* Introduction to circle trigonometry* Triangle Trigonometry* Graphing trig functions including applications and models* Additional trig including Law of Sines, Law of Cosines, and vectors	<p>Topics</p> <ul style="list-style-type: none">* Trigonometric inverses, identities, and equations* Parametric equations* Polar coordinates and equations* Sequences / series including arithmetic and geometric* Binomial Theorem