

Scope and Sequence

SECTION	LESSON	DAYS
UNIT 1	Polynomial and Rational Functions	32
1.1	Change in Tandem	2
1.2	Rates of Change	2
1.3	Rates of Change in Linear & Quadratic Functions	2
1.4	Polynomial Functions & Rates of Change	2
1.5	Polynomial Functions & Complex Zeros	2
1.6	Polynomial Functions & End Behavior	1
1.7	Rational Functions & Their Properties	5
1.8	Rational Functions & Graphs	4
1.9	Function Models & Applications	4
UNIT 2	Exponential and Logarithmic Functions	35
2.1	Change in Arithmetic and Geometric Sequences	2
2.2	Change in Linear and Exponential Functions	2
2.3	Exponential Functions	1
2.4	Exponential Function Manipulation	2
2.5	Exponential Function Context and Data Modeling	2
2.6	Competing Function Model Validation	2
2.7	Composition of Functions	2
2.8	Inverse Functions	2
2.9	Logarithmic Expressions	1
2.10	Inverses of Exponential Functions	2
2.11	Logarithmic Functions	1
2.12	Logarithmic Function Manipulation	2

Scope and Sequence

SECTION	LESSON	DAYS
2.13	Exponential & Logarithmic Equations & Inequalities	3
2.14	Logarithmic Function Context and Data Modeling	2
2.15	Semi-log Plots	2
UNIT 3	Trigonometric and Polar Functions	40
3.1	Periodic Phenomena	2
3.2	Sine, Cosine, and Tangent	2
3.3	Sine and Cosine Function Values	2
3.4	Sine and Cosine Function Graphs	2
3.5	Sinusoidal Functions	2
3.6	Sinusoidal Function Transformations	2
3.7	Sinusoidal Function Context and Data Modeling	2
3.8	The Tangent Function	2
3.9	Inverse Trigonometric Functions	2
3.10	Trigonometric Equations and Inequalities	3
3.11	The Secant, Cosecant, and Cotangent Functions	2
3.12	Equivalent Representations of Trigonometric Functions	3
3.13	Trigonometry and Polar Coordinates	2
3.14	Polar Function Graphs	2
3.15	Rates of Change in Polar Functions	2

Scope and Sequence

UNIT 4	Functions Involving Parameters, Vectors, and Matrices	40
4.1	Parametric Functions	2
4.2	Parametric Functions Modeling Planar Motion	2
4.3	Parametric Functions and Rates of Change	2
4.4	Parametrically Defined Circles and Lines	2
4.5	Implicitly Defined Functions	2
4.6	Conic Sections	3
4.7	Parametrization of Implicitly Defined Functions	2
4.8	Vectors	3
4.9	Vector-Valued Functions	1
4.10	Matrices	2
4.11	The Inverse and Determinant of a Matrix	2
4.12	Linear Transformations and Matrices	1
4.13	Matrices as Functions	3
4.14	Matrices Modeling Contexts	3