Unit Topic or Title, District, Grade Level, Teacher Name:

PreCalculus 1054 Alfred State Unit 1 – Algebra Review and Linear Functions

Assessments

Test #1 from Alfred State

Nightly graded homework assignment

Questioning during class

Class Participation

Prioritized Math Content Target Standards (70%):

Non-Prioritized Math Content Target Standards:

Resources: (Text Alignment):

PreCalculus Enhanced with Graphing Utilities Version 5e Pearson/Prentice Hall

Digital Mathematical Tools:

SmartBoard

TI 84 Calculators

TI Smartview

Math websites related to each topic

Targeted Standards for Mathematical Practice:

Solve linear equations   Solve quadratic equations   Solve rational equations

Discuss domain and range with rational and irrational functions   Determine line and point symmetry of equations and graphs

Determine slope-intercept, point-slope, and standard form of a linear equation   Factor using multiple methods

Understand the standard and general form of a circle   Solve equations involving circles

Instructional Calendar

Unit Topic or Title, District, Grade Level, Teacher Name:

PreCalculus 1054 Alfred State Unit 2 – Functions, Quadratics, and Inequalities

Assessments

Test #2 from Alfred State

Nightly graded homework assignment

Questioning during class

Class Participation

Prioritized Math Content Target Standards (70%):

Non-Prioritized Math Content Target Standards:

Vocabulary:

Modeling

Piecewise Function

Library of Functions

Linear Model

Linear Regression

Quadratic Modeling

Quadratic Inequalities

Digital Mathematical Tools:

SmartBoard

TI 84 Calculators

TI Smartview

Math websites related to each topic

Targeted Standards for Mathematical Practice:

Understand the Algebra of Functions   Graph Functions   Understand the Properties of Functions

Create and draw Piecewise Functions   Understand Graphing Transformation Techniques

Construct Functions   Model Linear Functions   Construct Linear Models   Perform Linear Regressions

Understand the properties of Quadratic Functions   Solve Quadratic Inequalities

Instructional Calendar

Unit Topic or Title, District, Grade Level, Teacher Name:

PreCalculus 1054 Alfred State Unit 3 – Polynomial, Rational, Composite, Inverse, Logarithmic, and Exponential Functions

Assessments

Test #3 from Alfred State

Nightly graded homework assignment

Questioning during class

Class Participation

Prioritized Math Content Target Standards (70%):

Non-Prioritized Math Content Target Standards:

Vocabulary:

Polynomial

Rational Function

Intermediate Value Theorem

Composite Function

One-To-One Function

Inverse Function

Logarithmic Function

Exponential Function

Resources: (Text Alignment):

PreCalculus Enhanced with Graphing Utilities Version 5e Pearson/Prentice Hall

Digital Mathematical Tools:

SmartBoard

TI 84 Calculators

TI Smartview

Math websites related to each topic

Targeted Standards for Mathematical Practice:

Graph a polynomial function by hand and on graphing calculator   Understand domain and range of rational functions

Solve rational inequalities and graph using interval notation   Solve word problems involving the intermediate value theorem

Graph and find domain and range of composite functions   Graph and find domain and range of one-to-one functions

Find inverses of functions and graph   Graph and find domain and range of Logarthmic Functions

Understand all the rules of logarithms   Solve Exponential and Logarithmic Equations

Instructional Calendar

| Unit Topic or Title, District, Grade Level, Teacher Name: | | Vocabulary: | Resources: (Text Alignment): |

Unit Topic or Title, District, Grade Level, Teacher Name:

PreCalculus 1054 Alfred State Unit 4 – Growth and Decay Models, Compound Interest, Trigonometry

| Assessments | Prioritized Math Content Target Standards (70%): |

Assessments

Test #4 from Alfred State

Nightly graded homework assignment

Questioning during class

Class Participation

Prioritized Math Content Target Standards (70%):

Non-Prioritized Math Content Target Standards:

Vocabulary:

Compound Interest

Compounded Continuously

Exponential Growth and Decay

Newton's Law of Cooling

Logistic Function

Exponential Curve Fitting

Area of a Sector

Angular Speed

Linear Speed

Unit Circle

Sinusoidal Curve Fitting

Resources: (Text Alignment):

PreCalculus Enhanced with Graphing Utilities Version 5e Pearson/Prentice Hall

Digital Mathematical Tools:

SmartBoard

TI 84 Calculators

TI Smartview

Math websites related to each topic

Calculate Compound Interest   Understand how e is used to calculate interest compounded continuously

Calculate exponential growth and decay   Solve word problems involving growth and decay

Solve problems involving logistic functions   Solve exponential regression equations   Solve equations using Newton's Law of Cooling

Find area of a sector   Find angular and linear speed   Utilize the unit circle to find trigonometric values

Graphs Sine and Cosine   Understand and solve equations using tan, sec, csc, and cot

 Doing regression equations involving Sinusoidal Curves

Instructional Calendar

Unit Topic or Title, District, Grade Level, Teacher Name:

PreCalculus 1054 Alfred State Unit 5   Trigonometry, Inverse Trig Functions, Trig Identities

Assessments

Test #5 from Alfred State

Nightly graded homework assignment

Questioning during class

Class Participation

Prioritized Math Content Target Standards (70%):

Non-Prioritized Math Content Target Standards:

Vocabulary:

Law of Sines

Law of Cosines

Double Angle

Half Angle

Digital Mathematical Tools:

SmartBoard

TI 84 Calculators

TI Smartview

Math websites related to each topic

Solve Inverse Trigonometric Equations   Solve increasingly complex trig identities   Use the sum and difference formulas

Solve Trigonometric Equations   Solve equations using Double and Half Angle Formulas   Solve triangles using Law of Sines

Solve Triangles using Law of Cosines   Find the Area of any Triangle

Instructional Calendar