## Course Syllabus - Online Algebra 2

| Week | What to do during the week | What to turn in |
| :---: | :---: | :---: |
| Week 1 | 1.1: Real Numbers and Number Operations I 1.2: Algebraic Expression 1.3: Linear Equations I HW 1 A I 1.4: Rewriting Equations IHW 1 B | HW 1A HW 1B |
| Week 2 | 1.5: Modeling Real World Problems 1.6: Solving Linear Inequalities 1.7: Absolute Value and Inequalities HW 1C (Honors) Chapter 1 Test | HW 1C (Honors) Test on Chapter 1 |
| Week 3 | 1 2.1: Functions and Graphs 1 $2.2:$ Slope 1 HW 2A 1 2.3: Graphing Linear Equations HW 2B 2.4: Finding Equations of Lines HW 2C HW 2D | $\begin{aligned} & \text { HW 2A } \\ & \text { HW 2B } \\ & \text { HW 2C } \\ & \text { HW 2D } \end{aligned}$ |
| Week 4 |  | HW 2E <br> HW 2F <br> HW 2G <br> HW 2H (Honors) <br> Test on Chapter 2 |
| Week 5 | 3.1: Graphical Solutions to Linear Systems 3.2: Algebraic Solutions to Linear Systems HW 3A - HW 3A | HW 3A |
| Week 6 | 3.3: Graphical Solutions to Inequalities 3.4. Graphing in 3 Dimensions HW 3B 3.5: Solving Systems in 3 Dimensions Chapter 3 Test | HW 3B <br> Test on Chapter 3 |
| Week 7 | 4.1: Graphing Quadratic Equations HW 4A 4.2: Factoring Quadratic Equations HW 4B | HW 4A HW 4B |
| Week 8 | 4.3: Solving Equations with Square Roots HW 4C 4.4: Complex Numbers HW 4D 4.: Completing the Square 4W 4E | HW 4C HW 4D HW 4E |
| Week 9 | 1.6: The Quadratic Formula a HW 4F I HW 4 G (Honors) 9 Chapter 4 Test | HW 4F <br> HW 4G (Honors) Test on Chapter 4 |
| Week 10 | 3 5.1: Properties of Exponents <br> 2 HW 5A <br> 1 5.2: Polynomial Functions <br> 1 HW 5B <br> 1 5.3: Operations on Polynomials <br> a 5.4: Factoring Polynomials and Solving Equations <br> 1 HW 5C | HW 5A HW 5B HW 5C |

## Course Syllabus - Online Algebra 2

| Week 11 | 5.5: Dividing Polynomials HW 5D 5.6: Finding Rational Roots 5.7: The Fundamental Theorem of Algebra HW 5E HW 5F (Honors) HW 5 G (Honors) Chapter 5 Test | HW 5D <br> HW 5E <br> HW 5F (Honors) <br> HW 5G (Honors) <br> Test on Chapter 5 |
| :---: | :---: | :---: |
| Week 12 | 6.1: Roots and Exponents 6.2: Rational Exponents HW 6A 6.3: Power Functions, Operations on Functions 6.4: Inverse Functions HW 6B | HW 6A HW 6B |
| Week 13 |  | HW 6C <br> HW 6D (Honors) <br> Test on Chapter 6 |
| Week 14 | $1{ }^{\text {st }}$ Semester Exam |  |

## Course Syllabus - Online Algebra 2

| Week of | What to do this week | Assignments to turn in |
| :---: | :---: | :---: |
| Week 15 | 7.1: Exponential Growth 1 HW 7A 7.2: Exponential Decay HW 7B | HW 7A HW 7B |
| Week 16 | 7.3: The Number e I HW 7C 7.4: Logarithmic Functions aW 7D | HW 7C <br> HW 7D |
| Week 17 | 7.5: Properties of Logarithms HW 7E 7.6: Solving Logarithmic Equations HW 7F HW 7G HW 7H (Honors) Chapter 7 Test | HW 7E <br> HW 7F <br> HW 7G <br> HW 7H (Honors) <br> Test on Chapter 7 |
| Week 18 | 1.1: Inverse Variation, Joint Variation, Combined Variation <br> 8. HW 8A <br> AW 8 B <br> - 8.2: Simple Rational Functions | HW 8A HW 8B |
| Week 19 | 8.3: Graphing Rational Functions HW 8C 8.4: Multiplication and Division with Rational Expressions HW 8D | HW 8C HW 8D |
| Week 20 | 8.5: Addition and Subtraction with Rational Expressions 1 HW 8E 8.6: Solving Rational Equations 日W 8 H HW 8 B HW 8 H (Honors) HW 81 (Honors) Chapter 8 Test | HW 8E <br> HW 8F <br> HW 8G <br> HW 8H (Honors) <br> HW 81 (Honors) <br> Test on Chapter 8 |
| Week 21 | 9.1: The Distance and Midpoint Formulas HW 9A 9.2. Parabolas HW 9B | HW 9A HW 9B |
| Week 22 | 9.3: Circles HW 9C 9.4: Ellipses HW 9D | $\begin{aligned} & \hline \text { HW 9C } \\ & \text { HW 9D } \end{aligned}$ |
| Week 23 | 9.5: Hyperbolas HW 9E 9.6: Conic Sections HW 9F (Honors) | HW 9E <br> HW 9F (Honors) <br> Test on Chapter 9 |
| Week 24 | 10.1: Sequences and Series HW 10A 10.2: Arithmetic Sequences, Arithmetic Series HW 10B 10.3: Geometric Sequences, Geometric Series HW 10C HW 10D (Honors) | HW 10A <br> HW 10B <br> HW 10C <br> HW 10D (Honors) |
| Week 25 | 11.1: Introduction to Trigonometry 1 1.2: The Tangent Ratio 11.3: Tangent Ratios for Particular Angles 1HW 11A 11.4 The Unit Circle and the Tangent Function | HW 11A |

## Course Syllabus - Online Algebra 2

| Week 26 | ```11.5 Solving Problems with the Tangent Ratio HW 11B 11.6: Sine and Cosine 11.7 Sine and Cosine for Particular Angles 11.8: Sine and Cosine on the Unit Circle``` | HW 11B |
| :---: | :---: | :---: |
| Week 27 | ```D 11.9 Solving Problems using Sine and Cosine``` | HW 11C <br> HW 11D <br> HW 11E <br> Test on Chapter 11 |
| Week 28 | ```12.1: Graphing the Sine and Cosine functions 12.2: Sinusoidal Motion and Circular Motion HW 12A HW 12B``` | HW 12A <br> HW 12B |
| Week 29 | ```1 12.3: Graphing the Tangent Function``` | $\begin{aligned} & \text { HW 12C } \\ & \text { HW 12D } \end{aligned}$ |
| Week 30 | ```l 12.5: The Law of Sines and Law of Cosines``` | HW 12E <br> HW 12F <br> HW 12G <br> Test on Chapter 12 |
| Week 31 | $\square$ Review for Exam |  |
| Week 32 | $\square 2^{\text {nd }}$ Semester Exam |  |

