**Algebra 2 Pacing Guide – Revised for Fall 2020**

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| **Traditional** | **Integrated** | **Unit 1 – Functions and Equations** |
| Days 1-11 | Days 1-22 | **Module 1 – Analyze Functions** |
|  | **1.1** | Domain, Range, and End Behavior | CC.9-12.F.IF.7c |
|  | **1.2** | Characteristics of Functions and Graphs | CC.9-12.F.IF.7c |
|  | **1.3** | Transformations of Function Graphs | CC.9-12.F.IF.7c |
|  | **1.4** | Transformations of Absolute Value and Quadratic Functions | CC.9-12.F.IF.7c |
|  | **1.5** | Compare Functions Across Representations | CC.9-12.F.IF.7c |
| **Module 2 – Solve Quadratic Equations and Systems** |
|  | **2.1** | Use Square Roots to Solve Quadratic Equations | CC.9-12.A.REI.4b |
|  | **2.2** | Operations with Complex Numbers | CC.9-12.N.CN.2 |
|  | **2.3** | Derive and Apply the Quadratic Formula | CC.9-12.N.CN.7 |
|  | **2.4** | Solve Linear-Quadratic Systems | CC.9-12.A.REI.11 |
|  |  | **Unit 2 – Polynomial Functions and Equations** |
| Days 12-20 | Days 23-40 | **Module 3 – Polynomial Functions** |
|  | **3.1** | Graph Polynomial Functions | CC.9-12.F.IF.7c |
|  | **3.2** | Analyze Graphs of Polynomial Functions | CC.9-12.F.IF.7c |
| **Module 4 – Function Operations and Polynomials** |
|  | **4.1** | Function Operations | CC.9-12.A.APR.1 |
|  | **4.2** | Add and Subtract Polynomials | CC.9-12.A.APR.1 |
|  | **4.3** | Multiply Polynomials | CC.9-12.A.APR.1 |
|  | **4.4** | Factor Polynomials | CC.9-12.A.SSE.2 |
|  | **4.5** | Divide Polynomials | CC.9-12.A.APR.1 |
| **Module 5 – Polynomial Equations** |
|  | **5.1** | Solve Polynomial Equations | CC.9-12.A.SSE.2 |
|  | **5.2** | The Fundamental Theorem of Algebra  | CC.9-12.N.CN.9 |
|  |  | **Unit 3 – Rational Exponents and Radical Functions** |
| Days 21-28 | Days 41-56 | **Module 6 – Rational Exponents and Radical Operations** |
|  | **6.1** | Rational Exponents and nth Roots | CC.9-12.N.RN.1 |
|  | **6.2**  | Properties of Rational Exponents and Radicals | CC.9-12.N.RN.2 |
| **Module 7 – Radical Functions and Equations** |
|  | **7.1** | Inverse Functions and Function Composition | CC.9-12.F.BF.4 |
|  | **7.2** | Inverses of Quadratic and Cubic Functions | CC.9-12.F.BF.4 |
|  | **7.3** | Graph Square Root Functions | CC.9-12.F.IF.7b |
|  | **7.4** | Graph Cube Root Functions | CC.9-12.F.IF.7b |
|  | **7.5** | Solve Radical Equations | CC.9-12.A.REI.2 |
|  |  | **Unit 4 – Exponential and Logarithmic Functions and Equations** |
| Days 29-39 | Days 57-78 | **Module 8 – Exponential Functions** |
|  | **8.1** | Exponential Growth and Decay Functions | CC.9-12.F.IF.7e |
|  | **8.2** | The Natural Base *e* | CC.9-12.F.IF.7e |
|  | **8.3** | Compound Interest | CC.9-12.F.IF.7e |
| **Module 9 – Logarithmic Functions** |
|  | **9.1** | Logarithms and Logarithmic Functions | CC.9-12.F.IF.7e |
|  | **9.2** | Graph Logarithmic Functions | CC.9-12.F.IF.7e |
|  | **9.3** | Create Exponential and Logarithmic Functions | CC.9-12.F.LE.2 |
| **Module 10 – Exponential and Logarithmic Equations** |
|  | **10.1** | Properties of Logarithms | CC.9-12.F.LE.4 |
|  | **10.2** | Solve Exponential Equations | CC.9-12.F.BF.5 |
|  | **10.3** | Solve Logarithmic Equations | CC.9-12.F.LE.4 |

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|  |  | **Unit 5 – Rational Functions and Equations** |
| Days 40-47 | Days 79-94 | **Module 11 – Rational Functions** |
|  | **11.1**  | Inverse Variation | CC.9-12.A.CED.2 |
|  | **11.2** | Graph Simple Rational Functions | CC.9-12.F.IF.7d |
|  | **11.3** | Graph More Complicated Rational Functions | CC.9-12.F.IF.7d |
| **Module 12 – Rational Expressions and Equations** |
|  | **12.1** | Multiply and Divide Rational Expressions | CC.9-12.A.APR.7 |
|  | **12.2** | Add and Subtract Rational Expressions | CC.9-12.A.APR.7 |
|  | **12.3** | Solve Rational Equations | CC.9-12.A.REI.2 |
|  |  | **Unit 6 – Sequences and Series** |
| Days 48-54 | Days 95-108 | **Module 13 – Explicit Formulas for Sequences and Series** |
|  | **13.1** | Define Sequences and Series | CC.9-12.F.IF.3 |
|  | **13.2** | Arithmetic Sequences and Series | CC.9-12.F.BF.2 |
|  | **13.3** | Geometric Sequences and Series | CC.9-12.A.SSE.4 |
| **Module 14 – Recursive Formulas for Sequences** |
|  | **14.1** | Recursive Formulas for Arithmetic Sequences | CC.9-12.F.BF.2 |
|  | **14.2** | Recursive Formulas for Geometric Sequences | CC.9-12.F.BF.2 |
|  |  | **Unit 7 – Trigonometric Functions and Identities** |
| Days 55-63 | Days 109-126 | **Module 15 – Unit-Circle Definition of Trigonometric Functions** |
|  | **15.1** | Angles of Rotation and Radian Measure | CC.9-12.F.TF.1 |
|  | **15.2** | Define and Evaluate the Basic Trigonometric Functions | CC.9-12.F.IF.4 |
|  | **15.3** | Use a Pythagorean Identity | CC.9-12.F.TF.8 |
| **Module 16 – Graph Trigonometric Functions** |
|  | **16.1** | Graph Sine and Cosine Functions | CC.9-12.F.IF.7e |
|  | **16.2** | Graph Tangent Functions | CC.9-12.F.IF.7e |
|  | **16.3** | Translations of Trigonometric Graphs | CC.9-12.F.TF.5 |
|  | **16.4** | Model Periodic Phenomena with Trigonometric Functions | CC.9-12.F.BF.1 |
|  |  | **Unit 8 – Probability**  |
| Days 64-71 | Days 127-142 | **Module 17 – Probability of Compound Events** |
|  | **17.1** | Theoretical and Experimental Probability  | CC.9-12.S.CP.2 |
|  | **17.2** | Two-Way Tables and Probability  | CC.9-12.S.CP.4 |
|  | **17.3** | Mutually Exclusive and Inclusive Events | CC.9-12.S.CP.6 |
| **Module 18 – Probability and Decision Making**  |
|  | **18.1** | Conditional Probability | CC.9-12.S.CP.4 |
|  | **18.2** | Dependent and Independent Events | CC.9-12.S.CP.2 |
|  | **18.3** | Analyze Decisions | CC.9-12.S.CP.6 |
|  |  | **Unit 9 – Statistics**  |
| Days 72-79 | Days 143-158 | **Module 19 – Data Distributions** |
|  | **19.1** | Probability Distributions | CC.9-12.S.ID.4 |
|  | **19.2** | Normal Distributions | CC.9-12.S.MD.3 |
|  | **19.3** | Data-Gathering Techniques | CC.9-12.S.IC.3 |
|  | **19.4** | Sampling Distributions | CC.9-12.S.IC.3 |
| **Module 20 – Make Inferences from Data** |
|  | **20.1** | Confidence Intervals and Margins of Error | CC.9-12.S.IC.4 |
|  | **20.2** | Surveys, Experiments, and Observational Studies | CC.9-12.S.IC.3 |
|  | **20.3** | Make Inferences from Expe - rimental Data | CC.9-12.S.IC.5 |

Unit 1 (Curriculum) - Modules: 2, 6, 8, 9, 10, 13, 14

Unit 2 (Curriculum) - Modules: 1, 3, 4, 5, 7, 11, 12

Unit 3 (Curriculum) - Modules: 15, 16

Unit 4 (Curriculum) - Modules: 17, 18, 19, 20