| Course Title: | Algebra 1A-MVS |  |
| :---: | :---: | :---: |
| Michigan Common Core Standards, Mathematical Practices |  |  |
| Unit 1 Big Idea: | Introduction to Algebra |  |
| Essential Questions | 1. How do the properties of the real number system define and restrict how expression are evaluated? <br> 2. When evaluating expressions, what is the relationship between a base and the power? <br> 3. How do the commutative, associative, and distributive properties aid in evaluating expressions? |  |
| Standards | Assignment | Description |
| A.CED.1, A. REI.1, MP 1, MP2, MP6 | 1.1 | Variables and Expressions |
| A.CED.1, A.REI.1, MP <br> 1, MP 2, MP 6 | 1.2 | Adding and Subtracting Real Numbers |
| A.CED.1, A.REI.1, MP <br> 1, MP 2, MP3 | 1.3 | Multiplying and Dividing Real Numbers |
| A.CED.1, A.REI.1, MP $\text { 2, MP 6, MP } 8$ | 1.4 | Powers and Exponents |
| A.CED.1, A.REI.1, MP <br> 1, MP2, MP 6 | 1.5 | Square Roots and Real Numbers |
| A.CED.1, A.REI.1, MP <br> 1, MP 2, MP 6 | 1.6 | Order of operations |
| A.CED.1, A.REI. 1 | 1.7 | Simplifying Expressions |
| Unit 2 Big Idea | Equalities and Inequalities |  |
| Essential Questions | 1. When solving, what are the way in which equations and inequalities are the same/and or different? <br> 2. When are absolute value equations used in life? <br> 3. How are compound inequalities identified and solved? |  |
| Standards | Assignment | Description |
| A.CEd.1, A.REI.1, A.REI. 3 | 2.1 | Solving Equations with Variables on Both Sides |
| A.CED.4, A.REI.3, N.Q.1, MP 1, MP 2, MP 3, MP 4, MP 6, MP 8 | 2.2 | Solving Formulas for any variable. |
| A.CED.1, A.REI. 3, MP 1, MP 3, MP 6 | 2.3 | Solving Absolute Value Equations |
| A.REI.1, A.REI.3, MP1, MP 2, MP 6 | 2.4 | Graphing and Writing Inequalities |
| A.REI.3, MP 1, MP 2, MP 6 | 2.5 | Solving Inequalities by Adding or Subtracting |
| A.CED.1, A.REI.3, MP <br> 1, MP 2, MP 6 | 2.6 | Solving Inequalities by Multiplying or Dividing |


| A.CED.1, A.REI.1, A. REI.3, MP 1, MP 2, MP 6 | 2.7 | Solving two-Step and Multi-Step Inequalities |
| :---: | :---: | :---: |
| A.CED.1, A.REI.3, MP <br> 1, MP 2, MP6 | 2.8 | Inequalities with Variables on Both Sides |
| A.REI.3, MP 1, MP 2, MP 6 | 2.9 | Solving Compound Inequalities |
| Unit 3 Big Idea | Linear Functions (Introduction to Functions) |  |
| Essential Questions | 1. How are functions represented (both graphically and symbolically) and what is the relationship between the equations (or inequalities) and their graphs? <br> 2. What is the difference between a relation and a function? <br> 3. What are the characteristics of linear functions and graphs? <br> 4. What are some areas where intercepts are used? |  |
| Standards | Assignment | Description |
| $\begin{array}{\|l} \hline \text { F.IF.1, F.IF.4, MP 1, } \\ \text { MP 2, MP } 6 \end{array}$ | 3.1 | Relations and Functions |
| A.CED.3, FIF.2, <br> F.LE.2, MP 1, MP 2, MP 4, MP 6 | 3.2 | Writing Functions |
| A.REI.10, F.IF.1, MP 1, MP 2, MP 3, MP 5, MP 6 | 3.3 | Graphing Functions |
| A.REI.10, F.IF.7, MP <br> 1, MP 2, MP 4, MP 6 | 3.4 | Identifying Linear Functions |
| A.CED.2, F.IF.7, MP <br> 1, PM 2, PP 4, MP6 | 3.5 | Using Intercepts |
| F.IF.6, MP 1, MP 2, MP 4, MP6 | 3.6 | Rate of Change/Slope |
| F.IF.6, MP 1, MP 2, MP4, MP6 | 3.7 | Slope Formula |
| A.CED.2, F.LE.1, F.LE.2, MP1, MP2, MP4. MP6 | 3.8 | Direct Variation |
| A.CED.2, A.CED.3, F.IF.6, F.BF.1, F.LE.2, MP1, MP2, MP4, MP6 | 3.9 | Slope-Intercept Form |
| A.CED.2, A.CED.3, F.IF.7, F.BF.1, MP1, MP2, MP4, MP6 | 3.10 | Point-Slope Form |
| G.GPE.5, F.IF.7, MP1, MP2, MP4, MP6, | 3.11 | Slopes of Parallel \& Perpendicular Lines |


| MP7 |  |  |
| :---: | :---: | :---: |
| F.BF.3, MP1, MP2, MP4, MP6, MP7 | 3.12 | Transforming Linear Functions |
| F.BF.3, F.IF.7, MP1, MP2, MP4, MP3 | 3.13 | Absolute Value Functions |
| Unit 4 Big Idea | Systems of Equations and Inequalities |  |
| Essential Questions | 1. What are the various methods for identifying the point(s) of concurrency of systems of equations and inequalities? <br> 2. What is a system of equations and what does it mean to have a solution to a system? |  |
| Standards | Assignment | Description |
| A.CED.2, A.REI.3, A.REI.6, A.REI.11, MP1, MP2, MP4, MP6 | 4.1 | Solving Systems by Graphing |
| A.REI.6, A.CED.3, MP1, MP2, MP6 | 4.2 | Solving Systems by Substitution |
| A.CED.2, A.REI.5, A.REI. 6 | 4.3 | Solving Systems by Elimination |
| A.CED.2, A.CED.3, A.REI.6, MP1, MP2, MP6 | 4.4 | Solving Special Systems |
| A.CED.3, A.REI.12, MP1, MP2, MP4, MP6 | 4.6 | Solving Systems of Linear Equations |
| A.CED.3, MP1, MP2, MP4, MP6 | 4.7 | Solving "3 by 3" Systems |
| Unit 5 Big Idea | Bivariate Data |  |
| Essential Questions | 1. How can we organize bivariate data to make predictions and identify relationships? <br> 2. How do we use scatter plots and trend lines to predict future events? |  |
| $\begin{aligned} & \text { S.ID.5, S.ID.6, } \\ & \text { S.ID.6a, MP1, MP2, } \\ & \text { PM4, MP6 } \end{aligned}$ | 5.1 | Scatter Plots and Trend Lines |

