

**2025-2026 FALL Semester**  
**Course: Advanced Algebra 2**

<b>DAY</b>	<b>DATE</b>	<b>TOPIC/LESSON</b>
<b>1</b>	W 8/13/2025	Welcome Back/Introductions
<b>2</b>	F 8/15	<b>1.1 - DAY 1</b> Parent functions Is it a function? Domain & Range Interval notation x- and y- intercepts
<b>3</b>	T 8/19	<b>1.1 - DAY 2</b> x- and y- intercepts Domain & Range Positive & negative intervals Increasing & decreasing intervals Average rate of change
<b>4</b>	R 8/21	<b>1.2</b> Transformations
<b>5</b>	T 8/26	<b>1.3</b> Piecewise functions
<b>6</b>	R 8/28	<b>1.4 DAY 1</b> Arithmetic Sequences Finding common difference Writing explicit definition/formula Writing recursive definition/formula Finding the nth term
<b>7</b>	T 9/2	<b>1.4 DAY 2</b> Arithmetic Series
<b>8</b>	R 9/4	<b>1.5</b> Solving equations & inequalities by graphing
<b>9</b>	M 9/8	<b>1.6 DAY 1</b> Solving systems of equations & inequalities by graphing Solving systems of equations by substitution Solving systems of equations by elimination Systems of equations word problems
<b>10</b>	W 9/10	<b>1.7</b> Solving systems of equations using matrices
<b>11</b>	F 9/12	<b>UNIT 1 Review</b>
<b>12</b>	T 9/16	<b>UNIT 1 Review (continued)</b>

<b>13</b>	R 9/18	<b>UNIT 1 Exam</b>
<b>14</b>	M 9/22	<b>2.1</b> Vertex form & standard form of quadratic function Finding vertex and axis of symmetry Apply transformation rules Find intercepts, domain & range, max/min Find equation of quadratic function given vertex and a point
<b>15</b>	W 9/24	<b>2.2</b> Standard form of a quadratic function Finding vertex Properties of parabola Quadratic regression (on calculator only)
<b>16</b>	F 9/26	<b>2.3 DAY 1</b> Factoring expressions Solving equations by factoring
<b>FALL BREAK</b>		
<b>17</b>	W 10/8	<b>2.3 DAY 2</b> Solving quadratic inequalities
<b>18</b>	F 10/10	<b>2.4 DAY 1</b> Complex numbers Solving equations with square roots Arithmetic operations with complex numbers
<b>19</b>	T 10/14	<b>2.4 DAY 2</b> Factoring sum of squares with complex numbers Solving equations with complex solutions
<b>20</b>	R 10/16	<b>Sections 2.1 - 2.4 Review</b>
<b>21</b>	M 10/20	<b>Sections 2.1 - 2.4 Exam</b>
<b>22</b>	W 10/22	<b>2.5</b> Completing the Square Writing a quadratic function in vertex form, given standard form
<b>23</b>	F 10/24	<b>2.6</b> Solving equations with the Quadratic Formula Discriminant
<b>24</b>	T 10/28	<b>2.7</b> Solving linear-quadratic systems of equations and inequalities
<b>25</b>	R 10/30	<b>Sections 2.5 - 2.7 Review</b>
<b>26</b>	M 11/3	<b>Sections 2.5 - 2.7 Exam</b>

27	W 11/5	Review & take District Assessment
28	F 11/7	<b>3.1</b> Classifying polynomials Stating degree Turning points Relative max/min End behaviors Graphing polynomials
29	T 11/11	<b>3.2</b> Add, subtract, & multiply polynomials
30	R 11/13	<b>3.4 DAY 1</b> Polynomial Long Division
31	M 11/17	<b>3.3</b> Factor using polynomial identities <u>AND</u> <b>3.4 DAY 2</b> Synthetic Division
32	W 11/19	<b>3.5</b> Finding zeros of polynomial functions Multiplicity Sketching curves using zeros
33	F 11/21	<b>Unit 3 Review</b>
34	T 11/25	<b>Unit 3 Exam</b>
<b>THANKSGIVING BREAK</b>		
35	T 12/2	<i>Topic 9 - Conics</i>
36	R 12/4	<i>Topic 9 - Conics</i>
37	M 12/8	<i>Topic 9 - Conics</i>
38	W 12/10	Review for final exam
39	F 12/12	Review for final exam
40	T 12/16	<i>Finals week</i>
41	R 12/18	<i>Finals week</i>