TN Department of Education

AAD–Algebra II

Course Code(s):	TBD
Prerequisite(s):	Algebra I or AAD Algebra I
Credit:	1
Grade Level:	9-12
Graduation Requirements:	This course satisfies one of four mathematics credit requirements for the alternate academic diploma
Programs of Study and Sequence:	This is typically the second course in a mathematics program of study.
Teacher Endorsement(s):	TBD

Course Requirements

Conceptual Category: Number and Quantity (N)		
Domain: The Real Number System (RN)		
Cluster	Standard Code	Standard
A. Extend the property of numbers to decimals and fractions	AAD.A2.N.RN.A.1	Understand and compute decimals to the hundredths (0.00) as related to money calculations.
	AAD.A2.N.RN.A.2	Understand and compute common fractions used in measurement and real world problems (i.e. cooking measurements; coin fraction of a dollar)
Conceptual Category: Number and Quantity (N)*		
Domain: Quantities (Q)		
Cluster	Standard Code	Standard
A. Units and quantitative reasoning	AAD.A2.N.Q.A.1	Solve problems involving units of measurement. H.ME.1a2

Conceptual Category: Number and Quantity (N)*		
Domain: The Complex Number System (CN)		
Cluster	Standard Code	Standard
A. Simply equations using arithmetic operations.	AAD.A2.N.CN.A.1	Simplify expressions that include exponents H.NO.1a1
Conceptual Category: Algebra (A)		
Domain: Seeing Structure in Expressions (SEE)		
Cluster	Standard Code	Standard
A. Interpret expressions	AAD.A2.A.SEE.A.1*	Interpret accurately compute using the symbols of operation (+, -, x, ÷) and equation (=).
A. Interpret expressions	AAD.A2.A.SEE.A.2	Interpret the parts of an expression including terms and variables (coefficients).
B. Write equivalent expressions	AAD.A2.A.SEE.B.1	Write a linear expression for a graphic representation. (i.e. "3 x 4 =" to represent a drawing of three bags with four pencils in each in a word problem requesting a total).
B. Write equivalent expressions	AAD.A2.A.SEE.B.2	Identify equivalent expressions (ex. 10 + 5 =15 is equivalent to 5 + 10 = 15)
Conceptual Category: Algebra (A)		
Domain: Arithmetic with Polynomials and Rational Expressions (APR)		
Cluster	Standard Code	Standard
A. Understand the relationship between place value and zero.	AAD.A2.A.APR.A.1	Understand that the location of zero within a number can impact the value of the number. (ex. In 108, the zero is the number of 10s, making the 1=100 and 8=8)
B. Perform arithmetic operations on polynomials	AAD.A2.A.APR.B.2	Solve an equation that includes one or two variables. H.PRF.2b2

Conceptual Category: Algebra (A)		
Domain: Creating Equations* (CED)		
Cluster	Standard Code	Standard
A. Create equations to represent relationships or data	AAD.A2.A.CED.A.1	Create equations to represent the relationship between two quantities.
	AAD.A2.A.CED.A.2	Create an equation from a graphic, data display, or picture representation.
Conceptual Category: Algebra (A)		
Domain: Reasoning with Equations and Inequalities (REI)		
Cluster	Standard Code	Standard
A. Understand that solving equations is a process of reasoning	AAD.A2.A.REI.A.1	Solve a multi-step equation or problem using calculation, picture or graphic representations, reference charts, or mathematical tools and check the answer to reasonableness.
B. Solve equations to determine equality or inequality	AAD. A2.A.REI.B.1	Compare two quantities or equations for equality and inequality (>, =, <).
C. Solve equations	AAD.A2.A.REI.C.1	Solve equations written in various formats (horizontal, vertical, narrative).
D. Represent and solve equations graphically	AAD.A2.A.REI.D.1	Identify a graphic representation of a linear model of a real world problem. H.PRF.1c1
Conceptual Category: Functions (F)		
Domain: Interpreting Functions (IF)		
Cluster	Standard Code	Standard
A. Interpret and predict based on	AAD.A2.F.IF.A.1	Determine or predict a missing quantity from a representation of a mathematical pattern.

a pattern demonstrated in context.	AAD.A2.F.IF.A.2	Determine of predict based on a graphic model of a pattern. (ex. Temperature weather chart, running total of projects assembled). H.PRF.2c1
B. Analyze different representations of an equation or operation.	AAD.A2.F.IF.B.1	Compare two representations of the same equation (ex. A picture of 5 apples in four baskets and the equation 5 x 4 = ____).
	AAD.A2.F.IF.B.2	Compare and contrast tow equations with similar numbers but different operations (ex. 10 + 10 = ____ and 10 x 10 =_____ , one is addition and one is multiplication and the multiplication equation will have a larger value solution)

Conceptual Category: Functions (F)

Domain: Building Functions (BF)

Cluster	Standard Code	Standard
A. Build an equations that represents the relationship between two quantities	AAD.A2.F.BF.A.1	*Write an equation that shows the relationship between two quantities (ex. 40 > 14; 37 = 37; 20 + 5 =25)

Conceptual Category: Functions (F)

Domain: Linear, Quadratic, and Exponential Models* (LE)

Cluster	Standard Code	Standard
A. Construct and solve linear equations to solve problems	AAD.A2.F.LE.A.1	Create and solve a linear equation for a real world problem.
	AAD.A2.F.LE.A.2	Create and solve a linear equation using a graph, geometric representation, or table.
B. Solve a linear equation for a missing attribute	AAD.A2.F.LE.B.1	Solve a linear equation to find a missing attribute when given the area, volume, or surface area. H.ME.1b2

Conceptual Category: Functions (F)

Domain: Trigonometric Functions (TF)		
Cluster	Standard Code	Standard
A. Understand the relationship between a solid and a shape	AAD.A2.F.TF.A.1	Recognize the shape of a face or bisecting plane of a solid (3-dimentional shape/object). (ex. The bisecting plane of a sphere is a circle; The face of a block is a square.)

Conceptual Category: Statistics and Probability (S)		

Domain: Interpreting Categorical and Quantitative Data (ID)		
Cluster	Standard Code	Standard
A. Summarize and interpret data	AAD.A2.S.ID.A.1	Use descriptive statistics range, median, mode, mean, and outlier/gaps to describe a data set. H.DPS.1c1
B. Develop and interpret data displays	AAD.A2.S.ID.B.1	Create and/or complete a graph from data sets, histograms, or box plots. H.DPS.1b1
	AAD.A2.S.ID.B.2	Compare and contrast the data represented in a graph, chart, histogram, or other data display.

Conceptual Category: Statistics and Probability (S)		

Domain: Making Inferences and Justifying Conclusions (IC)		
Cluster	Standard Code	Standard
A. Make inferences from equations and data displays	AAD.A2.S.IC.A.1	Recognize the value of data in making a decision or determining a preference. (ex. Looking at a graphic depiction of the annual salary for careers being considered, determine which would support a higher quality of life.)
	AAD.A2.S.IC.A.2	Determine data or data display needed to support a decision or decision.

Conceptual Category: Statistics and Probability (S)		

Domain: Conditional Probability and the Rules of Probability (CP)		
Cluster	Standard Code	Standard

A. Understand probability related to real world decisions	AAD.A2.S.CP.A.1	Recognize the difference between chance and consequence as related to real world decisions. (ex. If the Predators win, we will have a popcorn party (chance). vs. If you complete your weekly work list you will get popcorn (consequence).)

Standards Numbering Notes

The numbering is not exactly parallel to the state standards but is designed to create some consistency across disciplines for the special education teachers who may be teaching multiple subjects.

The following system was used to number the mathematics standards:
AAD.A1.A.SSE.A.1
Alternate academic diploma (**AAD**) standards
Algebra I (**A1**) is the course
Algebra (**A**) is the conceptual category
Seeing Structure in Expressions (**SSE**) is the domain.
A is the first cluster (ordered A, B, C etc. for first, second, third cluster within the domain, etc.)
1 is the standard number in the cluster (standards numbered consecutively within each cluster)

Domains indicated with a * are the major work of the grade

For standards that align to the MSAA Core Content Connectors (CCC), the code for that connector will appear after the standard and either begins with an "H" indicating high school level.