Forward Education

Autonomous Electric Vehicles of the Future

Nevada Academic Content Standards
Mathematics
Grade **11** - Adopted: **2010**

CONTENT STANDARD	NV.CC.MP.	Mathematical Practices
STRAND / INDICATOR	MP-1.	Make sense of problems and persevere in solving them.
STRAND / INDICATOR	MP-2.	Reason abstractly and quantitatively.
STRAND / INDICATOR	MP-3.	Construct viable arguments and critique the reasoning of others.
STRAND / INDICATOR	MP-4.	Model with mathematics.
STRAND / INDICATOR	MP-8.	Look for and express regularity in repeated reasoning.

CONTENT STANDARD	NV.CC.A.	Algebra
STRAND / INDICATOR	A-CED.	Creating Equations
INDICATOR / GRADE LEVEL EXPECTATION		Create equations that describe numbers or relationships.
GRADE LEVEL EXPECTATION	A-CED.2.	Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.

CONTENT STANDARD	NV.CC.A.	Algebra
STRAND / INDICATOR	A-REI.	Reasoning with Equations and Inequalities
INDICATOR / GRADE LEVEL EXPECTATION		Understand solving equations as a process of reasoning and explain the reasoning.
GRADE LEVEL EXPECTATION	A-REI.1.	Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.

CONTENT STANDARD	NV.CC.F.	Functions
STRAND / INDICATOR	F-IF.	Interpreting Functions

INDICATOR / GRADE LEVEL EXPECTATION		Analyze functions using different representations.
GRADE LEVEL EXPECTATION	F-IF.7.	Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.
INDICATOR	F-IF.7(a)	Graph linear and quadratic functions and show intercepts, maxima, and minima.

CONTENT STANDARD	NV.CC.F.	Functions
STRAND / INDICATOR	F-LE.	Linear and Exponential Models
INDICATOR / GRADE LEVEL EXPECTATION		Construct and compare linear and exponential models and solve problems.
GRADE LEVEL EXPECTATION	F-LE.1.	Distinguish between situations that can be modeled with linear functions and with exponential functions.
INDICATOR	F-LE.1(a)	Prove that linear functions grow by equal differences over equal intervals, and that exponential functions grow by equal factors over equal intervals.

CONTENT STANDARD	NV.CC.G.	Geometry
STRAND / INDICATOR	G-GPE.	Expressing Geometric Properties with Equations
INDICATOR / GRADE LEVEL EXPECTATION		Use coordinates to prove simple geometric theorems algebraically
GRADE LEVEL EXPECTATION	G-GPE.5.	Prove the slope criteria for parallel and perpendicular lines and use them to solve geometric problems (e.g., find the equation of a line parallel or perpendicular to a given line that passes through a given point).

Nevada Academic Content Standards
Mathematics
Grade **12** - Adopted: **2010**

CONTENT STANDARD	NV.CC.MP.	Mathematical Practices
STRAND / INDICATOR	MP-1.	Make sense of problems and persevere in solving them.
STRAND / INDICATOR	MP-2.	Reason abstractly and quantitatively.
STRAND / INDICATOR	MP-3.	Construct viable arguments and critique the reasoning of others.
STRAND / INDICATOR	MP-4.	Model with mathematics.
STRAND / INDICATOR	MP-8.	Look for and express regularity in repeated reasoning.

CONTENT STANDARD	NV.CC.A.	Algebra

STRAND / INDICATOR	**A-CED.**	**Creating Equations**
INDICATOR / GRADE LEVEL EXPECTATION		**Create equations that describe numbers or relationships.**

GRADE LEVEL EXPECTATION	A-CED.2.	Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.

CONTENT STANDARD	**NV.CC.A.**	**Algebra**
STRAND / INDICATOR	**A-REI.**	**Reasoning with Equations and Inequalities**
INDICATOR / GRADE LEVEL EXPECTATION		**Understand solving equations as a process of reasoning and explain the reasoning.**

GRADE LEVEL EXPECTATION	A-REI.1.	Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.

CONTENT STANDARD	**NV.CC.F.**	**Functions**
STRAND / INDICATOR	**F-IF.**	**Interpreting Functions**
INDICATOR / GRADE LEVEL EXPECTATION		**Analyze functions using different representations.**
GRADE LEVEL EXPECTATION	**F-IF.7.**	**Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.**

INDICATOR	F-IF.7(a)	Graph linear and quadratic functions and show intercepts, maxima, and minima.

CONTENT STANDARD	**NV.CC.F.**	**Functions**
STRAND / INDICATOR	**F-LE.**	**Linear and Exponential Models**
INDICATOR / GRADE LEVEL EXPECTATION		**Construct and compare linear and exponential models and solve problems.**
GRADE LEVEL EXPECTATION	**F-LE.1.**	**Distinguish between situations that can be modeled with linear functions and with exponential functions.**

INDICATOR	F-LE.1(a)	Prove that linear functions grow by equal differences over equal intervals, and that exponential functions grow by equal factors over equal intervals.

CONTENT STANDARD	**NV.CC.G.**	**Geometry**
STRAND / INDICATOR	**G-GPE.**	**Expressing Geometric Properties with Equations**
INDICATOR / GRADE LEVEL EXPECTATION		**Use coordinates to prove simple geometric theorems algebraically**

GRADE LEVEL EXPECTATION	G-GPE.5.	Prove the slope criteria for parallel and perpendicular lines and use them to solve geometric problems (e.g., find the equation of a line parallel or perpendicular to a given line that passes through a given point).

CONTENT STANDARD	NV.HS-PS.	PHYSICAL SCIENCE
STRAND / INDICATOR	HS-PS1.	Matter and Its Interactions
INDICATOR / GRADE LEVEL EXPECTATION		Students who demonstrate understanding can:

GRADE LEVEL EXPECTATION	HS-PS1-4.	Develop a model to illustrate that the release or absorption of energy from a chemical reaction system depends upon the changes in total bond energy.

CONTENT STANDARD	NV.HS-PS.	PHYSICAL SCIENCE
STRAND / INDICATOR	HS-PS3.	Energy
INDICATOR / GRADE LEVEL EXPECTATION		Students who demonstrate understanding can:

GRADE LEVEL EXPECTATION	HS-PS3-3.	Design, build, and refine a device that works within given constraints to convert one form of energy into another form of energy.

CONTENT STANDARD	NV.HS-PS.	PHYSICAL SCIENCE
STRAND / INDICATOR	HS-PS4.	Waves and Their Applications in Technologies for Information Transfer
INDICATOR / GRADE LEVEL EXPECTATION		Students who demonstrate understanding can:

GRADE LEVEL EXPECTATION	HS-PS4-2.	Evaluate questions about the advantages of using a digital transmission and storage of information.

CONTENT STANDARD	NV.HS-LS.	LIFE SCIENCE
STRAND / INDICATOR	HS-LS2.	Ecosystems: Interactions, Energy, and Dynamics
INDICATOR / GRADE LEVEL EXPECTATION		Students who demonstrate understanding can:

GRADE LEVEL EXPECTATION	HS-LS2-7.	Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.

CONTENT STANDARD	NV.HS-ESS.	EARTH AND SPACE SCIENCE
STRAND / INDICATOR	HS-ESS2.	Earth's Systems
INDICATOR / GRADE LEVEL EXPECTATION		Students who demonstrate understanding can:

GRADE LEVEL EXPECTATION	HS-ESS2-4.	Use a model to describe how variations in the flow of energy into and out of Earth's systems result in changes in climate.

CONTENT STANDARD	NV.HS-ESS.	EARTH AND SPACE SCIENCE
STRAND / INDICATOR	HS-ESS3.	Earth and Human Activity
INDICATOR / GRADE LEVEL EXPECTATION		Students who demonstrate understanding can:

GRADE LEVEL EXPECTATION	HS-ESS3-1.	Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity.
GRADE LEVEL EXPECTATION	HS-ESS3-2.	Evaluate competing design solutions for developing, managing, and utilizing energy and mineral resources based on cost-benefit ratios.
GRADE LEVEL EXPECTATION	HS-ESS3-3.	Create a computational simulation to illustrate the relationships among management of natural resources, the sustainability of human populations, and biodiversity.
GRADE LEVEL EXPECTATION	HS-ESS3-4.	Evaluate or refine a technological solution that reduces impacts of human activities on natural systems.
GRADE LEVEL EXPECTATION	HS-ESS3-6.	Use a computational representation to illustrate the relationships among Earth systems and how those relationships are being modified due to human activity.

CONTENT STANDARD	NV.HS-ETS.	ENGINEERING DESIGN
STRAND / INDICATOR	HS-ETS1.	Engineering Design
INDICATOR / GRADE LEVEL EXPECTATION		Students who demonstrate understanding can:

GRADE LEVEL EXPECTATION	HS-ETS1-1.	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
GRADE LEVEL EXPECTATION	HS-ETS1-2.	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
GRADE LEVEL EXPECTATION	HS-ETS1-3.	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.

Grade **11** - Adopted: **2010**

CONTENT STANDARD	NV.RST.11-12.	Reading Standards for Literacy in Science and Technical Subjects
STRAND / INDICATOR		Key Ideas and Details
INDICATOR / GRADE LEVEL EXPECTATION	RST.11-12.2.	Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.

INDICATOR / GRADE LEVEL EXPECTATION	RST.11-12.3.	Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.

CONTENT STANDARD	**NV.RST.11-12.**	**Reading Standards for Literacy in Science and Technical Subjects**
STRAND / INDICATOR		**Craft and Structure**

INDICATOR / GRADE LEVEL EXPECTATION	RST.11-12.4.	Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11-12 texts and topics.
INDICATOR / GRADE LEVEL EXPECTATION	RST.11-12.5.	Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.
INDICATOR / GRADE LEVEL EXPECTATION	RST.11-12.6.	Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, identifying important issues that remain unresolved.

CONTENT STANDARD	**NV.RST.11-12.**	**Reading Standards for Literacy in Science and Technical Subjects**
STRAND / INDICATOR		**Integration of Knowledge and Ideas**

INDICATOR / GRADE LEVEL EXPECTATION	RST.11-12.9.	Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.

CONTENT STANDARD	**NV.RST.11-12.**	**Reading Standards for Literacy in Science and Technical Subjects**
STRAND / INDICATOR		**Range of Reading and Level of Text Complexity**

INDICATOR / GRADE LEVEL EXPECTATION	RST.11-12.10.	By the end of grade 12, read and comprehend science/technical texts in the grades 11-12 text complexity band independently and proficiently.

CONTENT STANDARD	**NV.WHST.11-12.**	**Writing Standards for Literacy in Science and Technical Subjects**
STRAND / INDICATOR		**Text Types and Purposes**
INDICATOR / GRADE LEVEL EXPECTATION	**WHST.11-12.2.**	**Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.**

GRADE LEVEL EXPECTATION	WHST.11-12.2(d)	Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.

CONTENT STANDARD	**NV.WHST.11-12.**	**Writing Standards for Literacy in Science and Technical Subjects**
STRAND / INDICATOR		**Production and Distribution of Writing**

INDICATOR / GRADE LEVEL EXPECTATION	WHST.11 -12.4.	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
INDICATOR / GRADE LEVEL EXPECTATION	WHST.11 -12.6.	Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.

Nevada Academic Content Standards
Science
Grade **12** - Adopted: **2014**

CONTENT STANDARD	NV.HS-PS.	PHYSICAL SCIENCE
STRAND / INDICATOR	HS-PS1.	Matter and Its Interactions
INDICATOR / GRADE LEVEL EXPECTATION		Students who demonstrate understanding can:

GRADE LEVEL EXPECTATION	HS-PS1-4.	Develop a model to illustrate that the release or absorption of energy from a chemical reaction system depends upon the changes in total bond energy.

CONTENT STANDARD	NV.HS-PS.	PHYSICAL SCIENCE
STRAND / INDICATOR	HS-PS3.	Energy
INDICATOR / GRADE LEVEL EXPECTATION		Students who demonstrate understanding can:

GRADE LEVEL EXPECTATION	HS-PS3-3.	Design, build, and refine a device that works within given constraints to convert one form of energy into another form of energy.

CONTENT STANDARD	NV.HS-PS.	PHYSICAL SCIENCE
STRAND / INDICATOR	HS-PS4.	Waves and Their Applications in Technologies for Information Transfer
INDICATOR / GRADE LEVEL EXPECTATION		Students who demonstrate understanding can:

GRADE LEVEL EXPECTATION	HS-PS4-2.	Evaluate questions about the advantages of using a digital transmission and storage of information.

CONTENT STANDARD	NV.HS-LS.	LIFE SCIENCE
STRAND / INDICATOR	HS-LS2.	Ecosystems: Interactions, Energy, and Dynamics
INDICATOR / GRADE LEVEL EXPECTATION		Students who demonstrate understanding can:

GRADE LEVEL EXPECTATION	HS-LS2-7.	Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.

CONTENT STANDARD	NV.HS-ESS.	EARTH AND SPACE SCIENCE
STRAND / INDICATOR	HS-ESS2.	Earth's Systems
INDICATOR / GRADE LEVEL EXPECTATION		Students who demonstrate understanding can:

GRADE LEVEL EXPECTATION	HS-ESS2-4.	Use a model to describe how variations in the flow of energy into and out of Earth's systems result in changes in climate.

CONTENT STANDARD	NV.HS-ESS.	EARTH AND SPACE SCIENCE
STRAND / INDICATOR	HS-ESS3.	Earth and Human Activity
INDICATOR / GRADE LEVEL EXPECTATION		Students who demonstrate understanding can:

GRADE LEVEL EXPECTATION	HS-ESS3-1.	Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity.
GRADE LEVEL EXPECTATION	HS-ESS3-2.	Evaluate competing design solutions for developing, managing, and utilizing energy and mineral resources based on cost-benefit ratios.
GRADE LEVEL EXPECTATION	HS-ESS3-3.	Create a computational simulation to illustrate the relationships among management of natural resources, the sustainability of human populations, and biodiversity.
GRADE LEVEL EXPECTATION	HS-ESS3-4.	Evaluate or refine a technological solution that reduces impacts of human activities on natural systems.
GRADE LEVEL EXPECTATION	HS-ESS3-6.	Use a computational representation to illustrate the relationships among Earth systems and how those relationships are being modified due to human activity.

CONTENT STANDARD	NV.HS-ETS.	ENGINEERING DESIGN
STRAND / INDICATOR	HS-ETS1.	Engineering Design
INDICATOR / GRADE LEVEL EXPECTATION		Students who demonstrate understanding can:

GRADE LEVEL EXPECTATION	HS-ETS1-1.	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
GRADE LEVEL EXPECTATION	HS-ETS1-2.	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
GRADE LEVEL EXPECTATION	HS-ETS1-3.	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.

CONTENT STANDARD	NV.RST.11-12.	Reading Standards for Literacy in Science and Technical Subjects
STRAND / INDICATOR		**Key Ideas and Details**
INDICATOR / GRADE LEVEL EXPECTATION	RST.11-12.2.	Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.
INDICATOR / GRADE LEVEL EXPECTATION	RST.11-12.3.	Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.

CONTENT STANDARD	NV.RST.11-12.	Reading Standards for Literacy in Science and Technical Subjects
STRAND / INDICATOR		**Craft and Structure**
INDICATOR / GRADE LEVEL EXPECTATION	RST.11-12.4.	Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11-12 texts and topics.
INDICATOR / GRADE LEVEL EXPECTATION	RST.11-12.5.	Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.

CONTENT STANDARD	NV.RST.11-12.	Reading Standards for Literacy in Science and Technical Subjects
STRAND / INDICATOR		**Integration of Knowledge and Ideas**
INDICATOR / GRADE LEVEL EXPECTATION	RST.11-12.9.	Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.

CONTENT STANDARD	NV.RST.11-12.	Reading Standards for Literacy in Science and Technical Subjects
STRAND / INDICATOR		**Range of Reading and Level of Text Complexity**
INDICATOR / GRADE LEVEL EXPECTATION	RST.11-12.10.	By the end of grade 12, read and comprehend science/technical texts in the grades 11-12 text complexity band independently and proficiently.

CONTENT STANDARD	NV.WHST.11-12.	Writing Standards for Literacy in Science and Technical Subjects
STRAND / INDICATOR		**Text Types and Purposes**
INDICATOR / GRADE LEVEL EXPECTATION	**WHST.11-12.2.**	**Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.**
GRADE LEVEL EXPECTATION	WHST.11-12.2(d)	Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.

CONTENT STANDARD	NV.WHST.11-12.	Writing Standards for Literacy in Science and Technical Subjects
STRAND / INDICATOR		Production and Distribution of Writing
INDICATOR / GRADE LEVEL EXPECTATION	WHST.11-12.4.	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
INDICATOR / GRADE LEVEL EXPECTATION	WHST.11-12.6.	Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.

Nevada Academic Content Standards
Technology Education
Grade **11** - Adopted: **2019**

CONTENT STANDARD		NEVADA ACADEMIC CONTENT STANDARDS for COMPUTER SCIENCE
STRAND / INDICATOR		Practices
INDICATOR / GRADE LEVEL EXPECTATION	P1.	Fostering an Inclusive Computing Culture
GRADE LEVEL EXPECTATION	P1.2.	Address the needs of diverse end users during the design process to produce artifacts with broad accessibility and usability.
GRADE LEVEL EXPECTATION	P1.3.	Employ self- and peer-advocacy to address bias in interactions, product design, and development methods.

CONTENT STANDARD		NEVADA ACADEMIC CONTENT STANDARDS for COMPUTER SCIENCE
STRAND / INDICATOR		Practices
INDICATOR / GRADE LEVEL EXPECTATION	P3.	Recognizing and Defining Computational Problems
GRADE LEVEL EXPECTATION	P3.1.	Identify complex, interdisciplinary, real-world problems that can be solved computationally.
GRADE LEVEL EXPECTATION	P3.2.	Decompose complex real-world problems into manageable subproblems that could integrate existing solutions or procedures.
GRADE LEVEL EXPECTATION	P3.3.	Evaluate whether it is appropriate and feasible to solve a problem computationally.

CONTENT STANDARD		NEVADA ACADEMIC CONTENT STANDARDS for COMPUTER SCIENCE
STRAND / INDICATOR		Practices
INDICATOR / GRADE LEVEL EXPECTATION	P4.	Developing and Using Abstractions

GRADE LEVEL EXPECTATION	P4.3.	Create modules and develop points of interaction that can apply to multiple situations and reduce complexity.

CONTENT STANDARD		NEVADA ACADEMIC CONTENT STANDARDS for COMPUTER SCIENCE
STRAND / INDICATOR		Practices
INDICATOR / GRADE LEVEL EXPECTATION	P5.	Creating Computational Artifacts

GRADE LEVEL EXPECTATION	P5.1.	Plan the development of a computational artifact using an iterative process that includes reflection on and modification of the plan, taking into account key features, time and resource constraints, and user expectations.

GRADE LEVEL EXPECTATION	P5.2.	Create a computational artifact for practical intent, personal expression, or to address a societal issue.

CONTENT STANDARD		NEVADA ACADEMIC CONTENT STANDARDS for COMPUTER SCIENCE
STRAND / INDICATOR		Practices
INDICATOR / GRADE LEVEL EXPECTATION	P6.	Testing and Refining Computational Artifacts

GRADE LEVEL EXPECTATION	P6.1.	Systematically test computational artifacts by considering all scenarios and using test cases.

CONTENT STANDARD		NEVADA ACADEMIC CONTENT STANDARDS for COMPUTER SCIENCE
STRAND / INDICATOR		Practices
INDICATOR / GRADE LEVEL EXPECTATION	P7.	Communicating About Computing

GRADE LEVEL EXPECTATION	P7.1.	Select, organize, and interpret large data sets from multiple sources to support a claim.

CONTENT STANDARD		NEVADA ACADEMIC CONTENT STANDARDS for COMPUTER SCIENCE
STRAND / INDICATOR		Algorithms and Programming
INDICATOR / GRADE LEVEL EXPECTATION	9-12.AP.A.1.	Create prototypes that use algorithms to solve computational problems by leveraging prior student knowledge and personal interests.

CONTENT STANDARD		NEVADA ACADEMIC CONTENT STANDARDS for COMPUTER SCIENCE
STRAND / INDICATOR		Impacts of Computing

INDICATOR / GRADE LEVEL EXPECTATION	9-12.IC.C.2.	Test and refine computational artifacts to reduce bias and equity deficits.

CONTENT STANDARD		Grades 9-12 Advanced Computer Science Standards
STRAND / INDICATOR		Algorithms and Programming
INDICATOR / GRADE LEVEL EXPECTATION	A9-12.AP.A.3.	Use and adapt classic algorithms to solve computational problems.

CONTENT STANDARD		NEVADA ACADEMIC CONTENT STANDARDS for INTEGRATED TECHNOLOGY
STRAND / INDICATOR		Innovative Designer
INDICATOR / GRADE LEVEL EXPECTATION	9-12.ID.B.1.	Creatively use digital tools to support a design process and expand their understanding to identify constraints, trade-offs, and to weigh risks.
INDICATOR / GRADE LEVEL EXPECTATION	9-12.ID.C.1.	Engage in a cyclical design process to inquire and analyze, develop ideas, test, and revise prototypes, presenting finished products and best practices learned during the development.
INDICATOR / GRADE LEVEL EXPECTATION	9-12.ID.D.1.	Demonstrate an ability to persevere and handle greater ambiguity as they work to solve open-ended problems.

CONTENT STANDARD		NEVADA ACADEMIC CONTENT STANDARDS for INTEGRATED TECHNOLOGY
STRAND / INDICATOR		Computational Thinker
INDICATOR / GRADE LEVEL EXPECTATION	9-12.CT.A.1.	Define complex issues, create a plan, and select appropriate technology-assisted methods such as data analysis, abstract models, and algorithmic thinking in exploring and finding solutions.
INDICATOR / GRADE LEVEL EXPECTATION	9-12.CT.C.1.	Collaborate to break problems into component parts, identify key pieces, and use that information to problem-solve.

Nevada Academic Content Standards
Technology Education
Grade **12** - Adopted: **2019**

CONTENT STANDARD		NEVADA ACADEMIC CONTENT STANDARDS for COMPUTER SCIENCE
STRAND / INDICATOR		Practices
INDICATOR / GRADE LEVEL EXPECTATION	P1.	Fostering an Inclusive Computing Culture

GRADE LEVEL EXPECTATION	P1.2.	Address the needs of diverse end users during the design process to produce artifacts with broad accessibility and usability.
GRADE LEVEL EXPECTATION	P1.3.	Employ self- and peer-advocacy to address bias in interactions, product design, and development methods.

CONTENT STANDARD	NEVADA ACADEMIC CONTENT STANDARDS for COMPUTER SCIENCE	
STRAND / INDICATOR		**Practices**
INDICATOR / GRADE LEVEL EXPECTATION	**P3.**	**Recognizing and Defining Computational Problems**

GRADE LEVEL EXPECTATION	P3.1.	Identify complex, interdisciplinary, real-world problems that can be solved computationally.
GRADE LEVEL EXPECTATION	P3.2.	Decompose complex real-world problems into manageable subproblems that could integrate existing solutions or procedures.
GRADE LEVEL EXPECTATION	P3.3.	Evaluate whether it is appropriate and feasible to solve a problem computationally.

CONTENT STANDARD	NEVADA ACADEMIC CONTENT STANDARDS for COMPUTER SCIENCE	
STRAND / INDICATOR		**Practices**
INDICATOR / GRADE LEVEL EXPECTATION	**P4.**	**Developing and Using Abstractions**

GRADE LEVEL EXPECTATION	P4.3.	Create modules and develop points of interaction that can apply to multiple situations and reduce complexity.

CONTENT STANDARD	NEVADA ACADEMIC CONTENT STANDARDS for COMPUTER SCIENCE	
STRAND / INDICATOR		**Practices**
INDICATOR / GRADE LEVEL EXPECTATION	**P5.**	**Creating Computational Artifacts**

GRADE LEVEL EXPECTATION	P5.1.	Plan the development of a computational artifact using an iterative process that includes reflection on and modification of the plan, taking into account key features, time and resource constraints, and user expectations.
GRADE LEVEL EXPECTATION	P5.2.	Create a computational artifact for practical intent, personal expression, or to address a societal issue.

CONTENT STANDARD	NEVADA ACADEMIC CONTENT STANDARDS for COMPUTER SCIENCE	
STRAND / INDICATOR		**Practices**
INDICATOR / GRADE LEVEL EXPECTATION	**P6.**	**Testing and Refining Computational Artifacts**

GRADE LEVEL EXPECTATION	P6.1.	Systematically test computational artifacts by considering all scenarios and using test cases.

CONTENT STANDARD		NEVADA ACADEMIC CONTENT STANDARDS for COMPUTER SCIENCE
STRAND / INDICATOR		**Practices**
INDICATOR / GRADE LEVEL EXPECTATION	**P7.**	**Communicating About Computing**

GRADE LEVEL EXPECTATION	P7.1.	Select, organize, and interpret large data sets from multiple sources to support a claim.

CONTENT STANDARD		NEVADA ACADEMIC CONTENT STANDARDS for COMPUTER SCIENCE
STRAND / INDICATOR		**Algorithms and Programming**
INDICATOR / GRADE LEVEL EXPECTATION	9-12.AP.A.1.	Create prototypes that use algorithms to solve computational problems by leveraging prior student knowledge and personal interests.

CONTENT STANDARD		NEVADA ACADEMIC CONTENT STANDARDS for COMPUTER SCIENCE
STRAND / INDICATOR		**Impacts of Computing**
INDICATOR / GRADE LEVEL EXPECTATION	9-12.IC.C.2.	Test and refine computational artifacts to reduce bias and equity deficits.

CONTENT STANDARD		**Grades 9-12 Advanced Computer Science Standards**
STRAND / INDICATOR		**Algorithms and Programming**
INDICATOR / GRADE LEVEL EXPECTATION	A9-12.AP.A.3.	Use and adapt classic algorithms to solve computational problems.

CONTENT STANDARD		NEVADA ACADEMIC CONTENT STANDARDS for INTEGRATED TECHNOLOGY
STRAND / INDICATOR		**Innovative Designer**
INDICATOR / GRADE LEVEL EXPECTATION	9-12.ID.B.1.	Creatively use digital tools to support a design process and expand their understanding to identify constraints, trade-offs, and to weigh risks.

INDICATOR / GRADE LEVEL EXPECTATION	9-12.ID.C.1.	Engage in a cyclical design process to inquire and analyze, develop ideas, test, and revise prototypes, presenting finished products and best practices learned during the development.
INDICATOR / GRADE LEVEL EXPECTATION	9-12.ID.D.1.	Demonstrate an ability to persevere and handle greater ambiguity as they work to solve open-ended problems.

CONTENT STANDARD		NEVADA ACADEMIC CONTENT STANDARDS for INTEGRATED TECHNOLOGY
STRAND / INDICATOR		Computational Thinker
INDICATOR / GRADE LEVEL EXPECTATION	9-12.CT.A.1.	Define complex issues, create a plan, and select appropriate technology-assisted methods such as data analysis, abstract models, and algorithmic thinking in exploring and finding solutions.
INDICATOR / GRADE LEVEL EXPECTATION	9-12.CT.C.1.	Collaborate to break problems into component parts, identify key pieces, and use that information to problem-solve.