

Automotive Technology Supplemental Program Resources



This document was prepared by:

Office of Career Readiness, Adult Learning, and Education Options
Nevada Department of Education
755 N. Rook Street, Suite 201
Carson City, NV 89701

www.doe.nv.gov

Table of Contents

[Introduction](#) 3

[Program of Study](#) 4

[Program Structure](#) 5

[Course Descriptions](#) 6

[Equipment List\(s\)](#) 7

[Crosswalks and Alignments](#) 10

Introduction

This document provides supplemental information for the Automotive Technology program of study. It may be updated or revised as the base program of study, or complementary programs, are updated, added, or removed. Please contact the appropriate Education Programs Professional with any questions.

The Program of Study includes the approved courses, complementary courses, alignment(s) to industry, postsecondary options, and additional information.

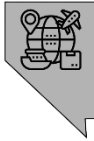
The Equipment List for the Automotive Technology program of study is included and, if applicable, additional items used only in the complementary course(s) are noted.

The Crosswalks and Alignments connect and support the Automotive Technology standards for the Transportation, Distribution, and Logistics program of study. Complementary course standards are not listed in the crosswalks and alignments.

Program of Study Information

The following program of study information sheet as well as the program structure tables for the courses are provided to be able to print separately for handouts. The information provided is based on the best available information at the time of this document and will be updated as appropriate.

Automotive Technology



The Automotive Technology program provides students with instruction in the operational and scientific nature of the automotive component systems including fuel, intake, exhaust, ignition, lubrication, braking, heating and cooling, electrical, and suspension systems. This program is aligned with the NATEF Maintenance and Light Repair (MLR) program standards.

Transportation, Distribution, and Logistics Career Cluster

Transportation, Distribution, and Logistics is focused on planning, management, and movement of people, materials, and goods by road, pipeline, air, rail, and water and related professional support services such as transportation infrastructure planning and management, logistics services, mobile equipment, and facility maintenance.

Postsecondary Options

Secondary

- Certificate of Skills Attainment

Certificate/License

- Collision Repair, CA (CSN)
- Automotive Technology: Diagnostic Specialist, CA (CSN)
- Automotive Technology: Heavy Line, CA (CSN)

Associates Degree

- Automotive Technology Service Technician, AAS (CSN)
- Performance Technician (CSN)
- *Master Technician (CSN)*
- *Alternative Fuels and Hybrid Technician (CSN)*
- *Collision Repair (CSN)*
- *Automotive Mechanic (WNC)*
- *Automotive Certified Technician (TMCC)*



For additional information on this cluster, please contact:

Denise Burton at dburton@doe.nv.gov

Website: <https://doe.nv.gov/CTE/>

Approved Courses

- Automotive Technology I
- Automotive Technology II
- Automotive Technology II Lab

Complementary Courses

- Automotive Technology Advanced Studies
- Intermediate Automotive Technology
- CTE Work Experience – Transportation, Distribution, and Logistics

Work-Based Learning Opportunities

- Job Shadowing / Internship / Work Experience / Career Days / Career Fairs / Field Trips / Guest Speakers

Career and Technical Student Organization

SkillsUSA



State Recognized Industry Certifications

Refer to the Governor's Office of Innovation's [Nevada Eligible Industry Credentialing List](#)

Aligned to Industry

Occupation	Median Wage Per year	Annual Openings	% Growth
Automotive Service Technicians and Mechanics	\$46,880	73,300	1.0%
Automotive Body and Glass Repairs	\$47,020	17,000	3.0%
Small Engine Mechanics	\$39,050	9,000	5.0%
Heavy Vehicle and Mobile Equipment Service Technicians	\$53,770	23,900	8.0%
Material Moving Machine Operators	\$38,380	105,700	7.0%
Industrial Machinery Mechanics, Machinery Maintenance Workers, and Millwrights	\$59,380	53,200	14.0%

Source U.S. Bureau of Labor Statistics 2022

The Nevada Department of Education does not discriminate on the basis of race, color, religion, national origin, sex, disability, sexual orientation, gender identity or expression, or age in its programs and activities and provides equal access to the Boy Scouts and other designated youth groups. For inquiries, contact the Equity Coordinator at (775) 687-9200.

Program Structure for Automotive Technology

The core course sequencing is provided in the following table. Complementary Courses are available and provided later in this document. The following courses provides a completed program of study. The Lab is a complementary course available concurrently with the Automotive Technology II course.

Core Course Sequence (R) with Lab Course(s) (C)

Required/ Complementary	Course Title	Abbreviated Name	CIP Code	SCED Subject Area	SCED Course Identifier	SCED Course Level	SCED Unit Credit	SCED Course Sequence	SCED Course Number
R	Automotive Technology I	AUTO TECH I	47.0600	20	104	G	1.00	12	20104G1.0012
R	Automotive Technology II	AUTO TECH II	47.0600	20	104	G	1.00	22	20104G1.0022
C	Automotive Technology II LAB	AUTO TECH II L	47.0600	20	104	E	1.00	22	20104E1.0022

The complementary courses are provided in the following table. **The qualifying program of study must be completed prior to enrolling in the complementary course(s).** A program does not have to utilize the complementary courses for students to complete their program of study.

Required/ Complementary	Course Title	Abbreviated Name	CIP Code	SCED Subject Area	SCED Course Identifier	SCED Course Level	SCED Unit Credit	SCED Course Sequence	SCED Course Number
C	Intermediate Automotive Technology	INT AUTO TECH	47.0600	20	104	E	1.00	11	0104E1.0011
C	Automotive Technology Advanced Studies	AUTO TECH AS	47.0600	20	104	E	1.00	11	20104E1.0011
C	Industry Recognized Credential - Automotive Technology	IRC AUTO TECH	47.0600	20	999	E	1.0	11	2099E1.011
C	CTE Work Experience - Transportation, Distribution, and Logistics	WORK EXPER TRANS	99.0016	20	998	G	1.00	11	20998G1.0011

CIP Code – Classification of Instructional Programs (CIP) Codes

SCED – School Courses for the Exchange of Data that populates the State Infinite Campus System and the System for Accountability Information in Nevada (SAIN)

Course Descriptions

Automotive Technology I

Prerequisite: None

This course will introduce students to the operational and scientific nature of the automotive component systems including fuel, intake, exhaust, ignition, lubrication, braking, cooling, and suspension systems. Practical application of safe work habits and the correct use of tools and precision test instruments will be emphasized throughout the course.

Automotive Technology II

Prerequisite: Automotive Technology I

This course is a continuation of Automotive Technology I. This course provides intermediate automotive technology students with laboratory activities including tasks with advanced equipment to diagnose and service modern automotive systems. This course focuses on safety, engine repair, automatic transmission, manual transmission, manual drive train, drive axles, clutch systems, suspension and steering, heating and air conditioning, engine performance, braking systems, and basic electrical systems. The appropriate use of technology and industry-standard equipment is an integral part of this course. Upon successful completion of this course, students will have acquired entry-level skills for employment and be prepared for postsecondary education.

Automotive Technology II LAB

Prerequisite: Concurrent enrollment in Automotive Technology II

This course is designed to expand the students' opportunities for applied learning. This course provides an in-depth lab experience that applies the processes, concepts, and principles as described in the classroom instruction. The coursework will encourage students to explore and develop advanced skills in their program area. The appropriate use of technology and industry-standard equipment is an integral part of this course.

Automotive Technology Advanced Studies

Prerequisite: Completion of Automotive Technology Program of Study

This course is offered to students who have completed all content standards in a program and desire to pursue advanced study through investigation and in-depth research. Students are expected to work independently or in a team and consult with their supervising teacher for guidance. The supervising teacher will give directions, monitor, and evaluate the students' topic of study. Coursework may include various work-based learning experiences such as internships and job shadowing, involvement in a school-based enterprise, completion of a capstone project, and/or portfolio development. This course may be repeated for additional instruction and credit.

Intermediate Automotive Technology

Prerequisite: Completion of Automotive Technology Program of Study

This course is a continuation of Automotive Technology II. This course provides advanced automotive technology students with in-depth study and skill development in the repair of automotive engines, engine performance, machine operations, steering and suspension service, drive train service, and air conditioning system service by providing additional instruction in the ASE standard areas. The appropriate use of technology and industry-standard equipment is an integral part of this course. Upon successful completion of this course students will have received advanced level skills to move into employment or continue in postsecondary education.

Industry-Recognized Credential – Automotive Technology

Prerequisite: Completion of Automotive Technology Program of Study

This course is offered to students who have completed all content standards in a program of study and desire to pursue an Industry-Recognized Credential that aligns with the standards and skills associated with the Automotive Technology Program of Study. This course is designed to expand the students' opportunities to pursue certification aligned with employment standards in the industry aligned with this program of study. The supervising teacher will provide instruction aligned with the certification requirements, monitor progress toward certification, and provide the students with appropriate testing or certification opportunities associated with the intended Industry-Recognized Credential that is the subject of the course. This course may be repeated for additional instruction and credit.

Equipment List

This recommended list is based upon a classroom size of 25 students. All costs are estimated and may be adjusted once verified and justified by districts with current quotes. No specific equipment vendor or brand names are endorsed due to various possibilities, but school districts should consult with stakeholders to ensure industry-recognized equipment and software are purchased. The intent of this list is to provide school districts with guidance on the equipment needed to implement the state standards for an Automotive Technology program.

CTE Classroom Equipment

Total:

\$17,670

QTY	ITEM DESCRIPTION	UNIT	TOTAL
25	Student Workstations w/chairs	\$400	\$10,000
1	Teacher Workstation w/chair	\$400	\$400
1	Teacher Computer (enhanced memory/storage, download capable)	\$1,500	\$1,500
1	Presentation Equipment (e.g., interactive whiteboard (IWB), or other interactive display system with software and accessories	\$3,000	\$3,000
1	Networkable Printer (black/white or color)	\$400	\$400
1	Vertical File Cabinet (lockable)	\$330	\$330
2	Storage Cabinets (36" x 12" x 72") (lockable)	\$300	\$600
2	Bookcases (36"x 12" x 42"	\$230	\$460
2	White Boards (4' x 8')	\$110	\$220
1	Eyewash Station	\$300	\$300
2	Fire Extinguisher	\$130	\$260
1	Sink with Soap Dispenser	\$100	\$100
1	First Aid Kit	\$100	\$100

Supplemental Program Resources

2022

Program Equipment

Total:

\$112,975

QTY	ITEM DESCRIPTION	UNIT	TOTAL
25	Student Computers	\$1,000	\$25,000
1	Technology Storage/Charging System	\$2,000	\$2,000
1	Start-up Tool Kit (including all basic hand and power tools for instruction and storage)	\$20,000	\$20,000
1	Break Lathe	\$7,000	\$7,000
1	Tire Changer	\$6,400	\$6,400
1	Air System (including air compressor, air hoses, air lines, regulators and water extractors, and air transformers/regulators)	\$6,000	\$6,000
2	Test Engines	\$5,000	\$10,000
1	Car Lift – 4 post	\$4,000	\$4,000
2	Car Lift – 2 post	\$3,000	\$6,000
1	HVAC Reclaimer/Recycler (for R1234 YF Refrigerant R 134 A)	\$2,500	\$2,500
1	Pressure Washer	\$2,200	\$2,200
2	Scissor Lifts	\$1,800	\$3,600
1	Parts Cleaner	\$1,800	\$1,800
1	Oil Filter Crusher	\$1,700	\$1,700
1	Hydraulic Jack	\$1,675	\$1,675
2	Gas Tungsten Arc Welders (GTAW/TIG)	\$1,600	\$3,200
1	Scan Tool	\$1,500	\$1,500
1	Engine Lift	\$1,100	\$1,100
1	Battery Changer (AGM/Gel compatible)	\$1,000	\$1,000
2	Engine Stand	\$1,000	\$2,000
1	Flammable Materials Storage Cabinet	\$1,000	\$1,000
1	Starting, Charging, and Battery System Charger	\$1,000	\$1,000
1	Frame Jack – 6 ton	\$900	\$900
1	Storage Cabinet for Sanitizes Eye Protection Equipment	\$800	\$800
1	Oxy-fuel Welders/Cutting Equipment	\$600	\$600

Supplemental Program Resources

2022

Instructional Materials

Total:

\$3,000

QTY	ITEM DESCRIPTION	UNIT	TOTAL
25	Student Textbooks (Approved by NDE) CTE Instructional Materials list can be found here .	\$100	\$2,500
1	Teacher Textbook Edition and Resources	\$500	\$500

Instructional Supplies

Total:

\$14,500

QTY	ITEM DESCRIPTION	UNIT	TOTAL
1	Personal Safety Equipment (welding hoods, gloves, ear protection, aprons)	\$5,000	\$5,000
1	Metalworking Materials and Tools (fasteners, dyes, scribes, dividers, trammel points, edge gauges, metal forming kits, heavy duty metal bender, seamer tongs, punch and flare tools, etc.)	\$4,000	\$4,000
1	Welding tools (clamps, slag hammers, electrode tip cleaners, flint strikes, etc.)	\$4,000	\$4,000
1	Measurement tools (tape, measures, levels, squares, etc.)	\$1,000	\$1,000
1	Lab Safety supplies (glasses, brooms, garbage cans, etc.)	\$500	\$500

Other

Total:

\$300

QTY	ITEM DESCRIPTION	UNIT	TOTAL
1	Occupational Safety and Health Administration (OSHA) Instructor Training	\$300	\$300

Category Totals:

Classroom Equipment	\$17,670
Program Equipment	\$112,975
Instructional Materials	\$3,000
Instructional Supplies	\$14,500
Other	\$300
Estimated Program Total	\$148,445

Crosswalks and Alignments for Program of Study Standards

Crosswalks and alignments are intended to assist the teacher make connections for students between the technical skills within the program and academic standards. The crosswalks and alignments are not intended to teach the academic standards but to assist students in making meaningful connections between their CTE program of study and academic courses. The crosswalks are for the required program of study courses, not the complementary courses.

Crosswalks (Academic Standards)

The crosswalks of the Automotive Technology Standards show connections with the Nevada Academic Content Standards. The crosswalk identifies the performance indicators in which the learning objectives in the Automotive Technology program connect with and support academic learning. The performance indicators are grouped according to their content standard and are crosswalked to the Nevada Academic Content Standards in English Language Arts, Mathematics, and Science.

Alignments (Mathematical Practices)

In addition to connections with the Nevada Academic Content Standards for Mathematics, many performance indicators support the Mathematical Practices. The following table illustrates the alignment of the Automotive Technology Standards Performance Indicators and the Mathematical Practices. This alignment identifies the performance indicators in which the learning objectives in the Automotive Technology program connect with and support academic learning.

Alignments (Science and Engineering Practices)

In addition to connections with the Nevada Academic Content Standards for Science, many performance indicators support the Science and Engineering Practices. The following table illustrates the alignment of the Automotive Technology Standards Performance Indicators and the Science and Engineering Practices. This alignment identifies the performance indicators in which the learning objectives in the Automotive Technology program connect with and support academic learning.

Crosswalks (Common Career Technical Core)

The crosswalks of the Automotive Technology Standards show connections with the Common Career Technical Core. The crosswalk identifies the performance indicators in which the learning objectives in the Automotive Technology program connect with and support the Common Career Technical Core. The Common Career Technical Core defines what students should know and be able to do after completing instruction in a program of study. The Automotive Technology Standards are crosswalked to the Transportation, Distribution, and Logistics Career Cluster™ and the Facility & Mobile Equipment Maintenance Career Pathway.

Crosswalk of Automotive Technology Program of Study Standards
and the Nevada Academic Content Standards

English Language Arts: Language Standards

Nevada Academic Content Standards		Performance Indicators
L.11-12.6	Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.	1.5.2

English Language Arts: Reading Standards for Literacy in Science and Technical Subjects

Nevada Academic Content Standards		Performance Indicators
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.	2.1.15, 3.1.3
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.	2.1.1, 3.1.1, 3.1.2, 4.1.1, 5.1.1, 6.1.1, 7.1.1, 8.1.1, 9.1.1, 10.1.1, 11.1.1
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.	2.1.13, 2.1.14, 2.1.15, 3.1.3, 3.1.5, 3.1.6, 5.3.1, 5.3.2, 6.3.1, 12.1.1, 12.1.2, 12.1.3
RST.11-12.5	Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.	2.1.15, 3.1.5, 3.1.6
RST.11-12.7	Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.	3.1.1, 3.1.2, 4.1.1, 5.1.1, 6.1.1, 7.1.1, 8.1.1, 9.1.1, 10.1.1, 11.1.1
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.	2.1.1, 2.1.2, 2.1.4, 2.1.7, 2.1.13, 2.1.14, 3.1.1, 3.1.2, 3.1.3, 4.1.1, 5.1.1, 5.3.1, 5.3.2, 6.1.1, 6.3.1, 7.1.1, 7.4.8, 8.1.1, 8.1.2, 8.4.10, 9.1.1, 9.5.1, 10.1.1, 11.1.1, 11.2.2, 12.1.1, 12.1.2, 12.1.3

English Language Arts: Speaking and Listening Standards

Nevada Academic Content Standards		Performance Indicators
SL.11-12.1a	Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.	1.1.1, 1.1.2, 1.2.1, 1.2.4, 1.4.2, 1.5.2
SL.11-12.1d	Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.	3.2.5
SL.11-12.2	Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data.	1.1.1, 1.1.2, 1.2.1, 1.2.4, 1.4.2
SL.11-12.4	Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.	1.1.1, 1.1.2, 1.2.1, 1.2.4, 1.4.2, 1.5.2

English Language Arts: Writing Standards for Literacy in Science and Technical Subjects

Nevada Academic Content Standards	Performance Indicators
WHST.11-12.2 Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.	3.2.5
WHST.11-12.2d 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.	3.2.5
WHST.11-12.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	1.2.5, 1.4.1, 2.1.1, 2.1.7, 2.1.13, 2.1.14, 2.1.15, 3.1.1, 3.1.2, 3.1.3, 3.1.5, 3.1.6, 3.2.5, 4.1.1, 5.1.1, 5.3.1, 5.3.2, 6.1.1, 6.3.1, 7.1.1, 7.2.2, 7.4.8, 8.1.1, 8.1.2, 8.4.10, 9.1.1, 9.1.5, 9.5.1, 10.1.1, 11.1.1, 11.2.1, 11.2.2, 12.1.1, 12.1.2, 12.1.3
WHST.11-12.5 Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.	1.4.4
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.	1.4.5
WHST.11-12.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.	1.1.2, 1.1.3, 1.4.2, 1.4.3, 1.5.2, 3.1.1, 3.1.2, 3.1.3, 4.1.1, 5.1.1, 6.1.1, 7.1.1, 8.1.1, 9.1.1, 10.1.1, 11.1.1, 12.1.1, 12.1.2, 12.1.3
WHST.11-12.9 Draw evidence from informational texts to support analysis, reflection, and research.	2.1.13, 2.1.14, 2.1.15

Math: Algebra – Creating Equations

Nevada Academic Content Standards		Performance Indicators
ACED.A.4	Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations.	9.1.3

Math: Algebra – Reasoning with Equations and Inequalities

Nevada Academic Content Standards		Performance Indicators
AREI.B.3	Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.	9.1.3

Math: Functions – Linear, Quadratic, and Exponential Models

Nevada Academic Content Standards		Performance Indicators
FLE.B.5	Interpret the parameters in a linear or exponential function in terms of a context.	9.1.3

Alignment of Automotive Technology Standards and the Mathematical Practices

Mathematical Practices	Automotive Technology Performance Indicators
1. Make sense of problems and persevere in solving them.	4.1.3; 4.3.4 7.4.5 8.3.3; 8.4.1, 8.4.2, 8.4.9 9.2.1; 9.3.1-9.3.3, 9.3.5; 9.4.1, 9.4.4 11.3.3, 11.3.4 12.1.4
2. Reason abstractly and quantitatively.	4.1.3; 4.3.4 7.4.5 8.3.3; 8.4.1, 8.4.2, 8.4.9 9.2.1; 9.3.1-9.3.3, 9.3.5; 9.4.1, 9.4.4 11.3.3, 11.3.4 12.1.4
3. Construct viable arguments and critique the reasoning of others.	2.1.1 3.1.3 6.1.3 7.4.8 8.1.2
4. Model with mathematics.	4.3.4 7.3.2 8.3.4; 8.4.5 9.1.3, 9.1.5, 9.1.9; 9.2.5
5. Use appropriate tools strategically.	2.2.2, 2.2.3, 2.2.5 8.3.3; 8.4.6 9.1.5, 9.1.9 11.1.3-11.1.5
6. Attend to precision.	2.2.2, 2.2.5 4.2.1; 4.3.1, 4.3.3 5.1.2-5.1.5; 5.2.2 6.1.4; 6.2.1, 6.2.2 7.2.4; 7.3.1, 7.3.2; 7.4.5 8.4.5 9.1.5
7. Look for and make use of structure.	2.1.1, 2.1.4 3.3.1 4.3.2 6.1.4; 6.2.1; 6.5.2 7.2.4; 7.4.2 8.1.3; 8.2.2; 8.4.7 9.2.2, 9.2.10
8. Look for and express regularity in repeated reasoning.	2.2.6; 2.3.2 3.3.2

Alignment of Automotive Technology Standards and the Science and Engineering Practices

Science and Engineering Practices	Automotive Technology Performance Indicators
1. Asking questions (for science) and defining problems (for engineering).	3.1.1-3.1.3; 3.2.1, 4.1.3; 4.3.4, 7.4.5, 8.3.3; 8.4.1-8.4.3, 8.4.5; 8.6.4, 9.1.10; 9.2.4, 9.2.5; 9.3.1-9.3.3, 9.3.5; 9.4.1, 9.4.4, 10.2.1, 10.2.3; 10.3.1; 10.4.1 11.3.3, 11.3.4
2. Developing and using models.	9.1.4, 11.1.2-11.1.5
3. Planning and carrying out investigations.	2.2.1, 4.3.4, 4.3.5, 5.2.3, 6.4.1, 5.4.2, 8.3.3; 8.4.1, 9.1.7; 9.2.4, 9.2.5; 9.3.1-9.3.3, 9.3.5; 9.4.1, 9.4.4, 11.1.2-11.1.5; 11.4.1
4. Analyzing and interpreting data.	2.2.5, 3.1.3, 3.1.5, 5.3.1, 5.3.2, 6.3.1, 7.3.2; 7.4.8, 8.1.2; 8.4.10; 8.7.3, 9.1.3, 9.1.5; 9.3.6, 11.2.2, 12.1.1, 12.1.4
5. Using mathematics and computational thinking.	2.1.2; 2.2.5, 7.3.1, 7.3.2, 8.2.7; 8.3.4; 8.4.5, 9.1.3, 9.1.5, 9.1.6, 9.1.9
6. Constructing explanations (for science) and designing solutions (for engineering).	5.3.1, 5.3.2, 6.3.1, 7.3.2, 8.1.2; 8.4.10, 9.5.1, 11.2.2
7. Engaging in argument from evidence.	3.1.3, 4.1.3; 4.3.4, 8.3.3; 8.4.1-8.4.3, 8.4.5, 8.4.9; 8.6.4, 9.1.10; 9.2.1, 9.2.4; 9.3.1-9.3.3, 9.3.5; 9.4.1, 9.4.4, 11.3.3, 11.3.4; 11.4.1
8. Obtaining, evaluating, and communicating information.	3.1.1-3.1.3, 6.3.1, 11.1.2-11.1.5; 11.2.2

Crosswalks of Automotive Technology Standards and the Common Career Technical Core

Transportation, Distribution, and Logistics Career Cluster	Performance Indicators
1. Describe the nature and scope of the Transportation, Distribution & Logistics Career Cluster™ and the role of transportation, distribution and logistics in society and the economy.	12.1.1
2. Describe the application and use of new and emerging advanced techniques to provide solutions for transportation, distribution and logistics problems.	12.1.3
3. Describe the key operational activities required of successful transportation, distribution and logistics facilities.	12.1.2
4. Identify governmental policies and procedures for transportation, distribution and logistics facilities. Career Cluster™	12.1.1
5. Describe transportation, distribution and logistics employee rights and responsibilities and employers' obligations concerning occupational safety and health.	12.1.2
6. Describe career opportunities and means to achieve those opportunities in each of the Transportation, Distribution, and Logistics Career Pathways.	12.1.2

Facility & Mobile Equipment Maintenance Career Pathway	Performance Indicators
1. Develop preventative maintenance plans and systems to keep facility and mobile equipment inventory in operation.	3.1.1-3.1.6
2. Design ways to improve facility and equipment system performance.	2.1.1; 2.2.1-2.2.4