

Transportation Technology/Auto

Level I Unit Outline

Unit 1: Safety in the Shop

- Identify safety concerns in the shop.
- Protective clothing/equipment- Safety glasses, boots, pants, gloves etc.
- Identify safety equipment i.e., fire extinguishers, eye wash etc.
- Demonstrate first aid procedures.
- OSHA
- Tool safety
 - Hand tool safety
 - Power tool safety
- Shop equipment safety
- Spills, Blood Borne Pathogens (BBP's)
- Around the vehicle safety
- Hazards in the work place

Unit 2: Tools

- Safety
- Tool care
- Fractional/Metric systems
- Measurements
- Basic hand tools
- Basic power tools
- Advanced hand tools
- Advanced power tools
- General shop equipment
- Lift safety course

Unit 3: Shop Cleanliness

- Safety
- Floors (sweeping/mopping)
- Windows-proper clean/remove dirt/dust
- Tools- clean/organize in proper place
- Storage- Cabinets/tool boxes/cages
- Organizers- Tool box/cabinets
- Brooms/mops/sink- storage, cleanliness
- Rags/waste disposal- Waste bins/fire bins

- Degreasing- removing engine oil/grease
- Stain removal- Remove stains from skin/floor/clothes

Unit 4: Chemicals

- Safety
- Identification-Locate and identify different chemicals
- MSDS- Material Safety Data Sheets/facts
- Storage- Proper storage/containers
- Usage- Proper use/handling of chemicals
- Disposal- Proper disposal of chemicals in waste

Unit 5: Charts and Manuals

- Location-Locate sources for manuals/charts
- Identification-Identify proper manual/chart for task
- Keys/legends/symbols- Identify symbols
- Conversions: Metric/standard/fractional conversions

Unit 6: Computer Applications

- Power point presentations
- Internet research
- Internet parts
- Mitchell 1 On Demand • Invoice typing
- Work documentation

Unit 7: Vehicle Components

- Identify engine
- Identify exhaust
- Identify transmission
- Identify differentials
- Identify tires/wheels/lug nuts
- Identify cooling system components
- Identify steering components
- Identify fuel system components
- Identify brake components
- Identify comfort feature components
- Identify body components
- Identify frame components

Unit 8: Automotive Service Lubrication

- Safety
- Oil Change procedures/tools
- Differential fluid exchange
- Transmission fluid/transmission service

Unit 9: Automotive Brake Systems

- Brake parts Identification
- Disc brake systems
- Drum brake systems
- High performance brake systems
- Heavy duty brake systems
- Wear indicators
- Service topics
- Hydraulics/hoses and lines
- Bleeding procedures

Unit 10: Workplace Readiness/ Career & Technology 9.2 Career Awareness, Exploration and Preparation

- Demonstrate leadership characteristics
- Demonstrate punctuality
- Demonstrate dependability
- Demonstrate positive work attitude
- Demonstrate flexibility
- Demonstrate respect for others
- Demonstrate desirable work ethic

Transportation Technology/Auto
New Jersey Student Learning Standards (NJSLs)

NJ Learning Standards: CTE.9.3

CONTENT AREA:	9.3 CAREER AND TECHNICAL EDUCATION
TRANSPORTATION, DISTRIBUTION & LOGISTICS CAREER CLUSTER[®]	
Number	Standard Statement
<i>By the end of Grade 12, Career and Technical Education Program completers should be able to:</i>	
CAREER CLUSTER[®]:	TRANSPORTATION, DISTRIBUTION & LOGISTICS (TD)
PATHWAY:	SALES & SERVICE (TD-SAL)
9.3.12.TD-SAL.1	Analyze the ongoing performance of transportation, logistics and distribution-related sales and service operations.
9.3.12.TD-SAL.2	Demonstrate the use of sales and ongoing service of products and services that are transportation related to promote development of existing and future clients and customers.