

Standards and Competencies for Transportation Core (Course # 5702)

	Begin-End Yr
Standard 1 - Students will demonstrate leadership, citizenship, and teamwork skills required for success in the school, community, and workplace.	2009 -
1.1 - Cultivate positive leadership skills.	2009 -
1.2 - Participate in SkillsUSA as an integral part of classroom instruction	2009 -
1.3 - Assess situations and apply problem-solving and decision-making skills to particular client relations in the community and workplace.	2009 -
1.4 - Analyze the points of the SkillsUSA creed and purposes.	2009 -
Standard 2 - Students will explore the transportation service industry and its career opportunities	2009 -
2.1 - Trace the growth and development of the transportation service industry	2009 -
2.2 - Evaluate career paths within the transportation service industry	2009 -
2.3 - Evaluate personal characteristics required for success in the transportation service industry	2009 -
Standard 3 - Students will demonstrate communication skills required in the transportation service industry	2009 -
3.1 - Communicate and comprehend oral and written information typically occurring in the transportation service workplace.	2009 -
3.2 - Solve problems and make decisions using a logical process.	2009 -
3.3 - Use teamwork skills to accomplish goals, solve problems, and manage conflict within groups	2009 -
Standard 4 - Students will apply mathematics and science knowledge and skills to transportation service technology	2009 -
4.1 - Perform mathematical calculations and measurements commonly used in the transportation service workplace.	2009 -
4.2 - Apply basic principles of chemistry to transportation service technology including automotive, diesel, motorcycle, all terrain vehicles, and watercraft.	2009 -
4.3 - Apply basic principles of physics to transportation service technology including automotive, diesel, motorcycle, all terrain vehicles, and watercraft.	2009 -
4.4 - Use the scientific process to determine the solution to a problem.	2009 -
Standard 5 - Students will demonstrate transportation service technology safety practices, including Occupational Safety and Health Administration (OSHA) and Environmental Protection Agency (EPA) requirements for transportation service and repair facility	2009 -
5.1 - Determine the safe and correct application for chemicals used in a transportation service and repair facility	2009 -
5.2 - Use protective clothing and safety equipment.	2009 -
5.3 - Use fire protection equipment.	2009 -
5.4 - Follow OSHA and EPA regulations affecting transportation service technology	2009 -
5.5 - Respond to safety communications.	2009 -
Standard 6 - Students will identify and properly use, maintain, and store basic transportation service hand and power tools and equipment.	2009 -
6.1 - Identify and illustrate the function of common transportation hand and power tools	2009 -
6.2 - Properly use transportation hand and power tools and service and diagnostic equipment	2009 -
6.3 - Properly maintain and store transportation hand and power tools	2009 -
Standard 7 - Students will demonstrate interpersonal and employability skills required in the transportation service industry	2009 -
7.1 - Infer relationships between work ethics, organizational skills, and personal job success	2009 -
7.2 - Demonstrate attitudes conducive to workplace success.	2009 -
7.3 - Maintain a neat and orderly work area.	2009 -
7.4 - Assess implications of diversity for communities and workplaces.	2009 -
7.5 - Exhibit positive employability behaviors.	2009 -
7.6 - Develop individual time management and work sequencing skills	2009 -
Standard 8 - Students will examine basic functions and operations of vehicle engine components and their maintenance and repair.	2009 -
8.1 - Identify different types of gasoline and diesel engines.	2009 -
8.2 - Identify and explain 2 & 4 stroke engine operation.	2009 -
8.3 - Inspect, measure, and identify parts of the engine block; determine needed repairs	2009 -
8.4 - Inspect, measure, and identify parts of the engine cylinder head; determine needed repairs	2009 -
8.5 - Measure timing gear and chain wear; determine needed repairs	2009 -
8.6 - Inspect and replace timing belt; check belt tension; adjust as necessary.	2009 -
Standard 9 - Students will examine basic functions of the engine lubricating systems and their maintenance and repair	2009 -
9.1 - Identify components and functions of the lubricating system (oil pump, relief valve, cooler, filter, ect)	2009 -
9.2 - Identify and explain the API certification chart and viscosity ratings of various oils and lubricants	2009 -
9.3 - Perform oil and filter change.	2009 -
Standard 10 - Students will examine basic functions of the engine cooling systems and their maintenance and repair	2009 -
10.1 - Identify components and function of the cooling system.	2009 -
10.2 - Perform cooling system, cap, and recovery system tests (pressure, combustion leakage, and temperature), determine necessary action.	2009 -
10.3 - Inspect, replace, and adjust drive belts, tensioners, and pulleys; check pulley and belt alignment	2009 -
10.4 - Test coolant, drain, flush, and refill cooling system with recommended coolant; bleed air as required	2009 -