CTE Re-Approval Self-Study Report

Automotive Technology

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Self-study

> *Self-study is the first step in the career and technical education approval process. The self-study review is required for all existing programs and new programs seeking approval. Its purpose is to bring together partners to review the CTE program, propose relevant modifications, and evaluate the degree to which the program meets the policy requirements approved by the Board of Regents on February 6, 2001.*

Self-study review will include:

Curriculum review

Benchmarks for student performance and student assessment

Teacher certification and highly-qualified status of instructional staff

Work-based learning opportunities

Teacher and student schedules

Resources, including staff, facilities, and equipment

Accessibility for all students

Work skills employability profile

Professional development plans

Projected number of students to be served

Source: http://www.p12.nysed.gov/cte/ctepolicy/guide.html

Return to TOC

Automotive Service Technicians and Mechanics

Quick Facts:	
2015 Median Pay	$38,470 per year $18.50 per hour
Typical Entry-Level Education	Postsecondary nondegree award
Work Experience in a Related Occupation	None
On-the-job Training	Short-term on-the-job training
Number of Jobs, 2014	739,900
Job Outlook, 2014-24	5% (As fast as average)
Employment Change, 2014-24	39,100

What Automotive Service Technicians and Mechanics Do

Automotive service technicians and mechanics, often called *service technicians* or *service techs*, inspect, maintain, and repair cars and light trucks.

Work Environment

Most automotive service technicians and mechanics work in well-ventilated and well-lit repair shops. Although technicians often identify and fix automotive problems with computers, they commonly work with greasy parts and tools, sometimes in uncomfortable positions.

How to Become a Automotive Service Technician and Mechanic

Employers prefer that automotive service technicians and mechanics complete a formal education program at a postsecondary institution. Industry certification is usually required once the person is employed.

Pay

The median annual wage for automotive service technicians and mechanics was $38,470 in May 2016.

Job Outlook

Employment of automotive service technicians and mechanics is projected to grow 5 percent from 2014 to 2024, about as fast as the average for all occupations. Job opportunities for qualified jobseekers should be good.

Related Occupations

Occupational Title	SOC Code	Employment, 2014	Projected Employment, 2024	Change, 2014-24	
				Percent	Numeric
Automotive body and related repairers	49-3021	149,700	163,500	9	13,700
Automotive glass installers and repairers	49-3022	19,300	20,800	8	1,500
Bus and truck mechanics and diesel engine specialists	49-3031	263,900	295,500	12	31,600
Heavy vehicle and mobile equipment service technicians and mechanics	49-3040	186,500	196,500	5	10,100
Small engine mechanics	49-3050	71,700	74,900	4	3,200

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook, 2016-17 Edition*, Automotive Service Technicians and Mechanics, on the Internet at https://www.bls.gov/ooh/installation-maintenance-and-repair/automotive-service-technicians-and-mechanics.htm (visited *September 18, 2017*).

New York Employment Demand Profile: **Automotive Technology**

Source: Labor Insight Jobs (Burning Glass Technologies), Summary Demand and Requirements Table by Occupation, New York state data, Sep. 01, 2016 - Aug. 31, 2017.

Category:		Demand and Employment				Salary		Education level based on posting requirements (*excluding NA)						Education level of employed individuals		
Source:		Burning Glass	BLS/OES, 2016	BGT Projections		Burning Glass	BLS/OES, 2016	Burning Glass						ACS, 2014		
SOC Code (ONET-6)	Occupation Title	Number of Job Postings	Number Employed 2016	% Change in Employment, 2015-2016	Projected Statewide Change in Employment, 2016-2026	Mean Advertised Salary	Mean Salary	% Requiring high school*	% Requiring Post-Secondary or Associate's Degree*	% Requiring Bachelor's Degree*	% Requiring Master's Degree*	% Requiring Doctoral Degree*	% with Unspecified Education	% with a high school diploma or less	% with Some College or an Associate's	% with a Bachelor's or higher
49-3031	**Bus and Truck Mechanics and Diesel Engine Specialists**	1,701	13,290	0%	20.6%	$89,904	$53,190	83%	18%	0%	0%	0%	46%	61%	36%	3%
49-3023	**Automotive Service Technicians and Mechanics**	1,199	34,830	-3%	6.1%	$54,155	$41,150	92%	19%	0%	0%	0%	74%	62%	35%	4%
49-3042	**Mobile Heavy Equipment Mechanics, Except Engines**	428	2,710	5%	11.2%	$51,706	$54,660	34%	71%	0%	0%	0%	43%	60%	37%	4%
49-3021	**Automotive Body and Related Repairers**	357	7,150	-6%	10.9%	$39,755	$42,510	100%	0%	0%	0%	0%	71%	71%	26%	3%
49-3053	**Outdoor Power Equipment and Other Small Engine Mechanics**	28	1,480	8%	7.3%	N/A	$35,240	100%	23%	0%	0%	0%	54%	62%	35%	3%
49-3043	**Rail Car Repairers**	23	1,400	4%	4.2%	N/A	$61,340	N/A	N/A	N/A	N/A	N/A	4%	60%	37%	4%
49-3041	**Farm Equipment Mechanics and Service Technicians**	15	570	-26%	10.9%	N/A	$42,810	N/A	N/A	N/A	N/A	N/A	7%	60%	37%	4%
49-3051	**Motorboat Mechanics and Service Technicians**	8	1,260	5%	6.1%	N/A	$39,240	N/A	N/A	N/A	N/A	N/A	13%	62%	35%	3%

49-3022	**Automotive Glass Installers and Repairers**	5	930	22%	9.7%	N/A	$28,280	N/A	N/A	N/A	N/A	N/A	20%	70%	27%	3%
49-3052	**Motorcycle Mechanics**	3	650	-5%	6.2%	N/A	$37,370	N/A	N/A	N/A	N/A	N/A	33%	62%	35%	3%

*This report provides information on both the preferred and minimum/required education levels for job postings. For this reason, a job posting may be counted in more than one of the educational categories shown in the table below. Please also note that Bureau of Labor Statistics (BLS) data is only available at the 6-digit SOC code level.

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A. Curriculum Review

> *The curriculum review is a step in the self-study process. It is an opportunity for members of the self-study team to evaluate the proposed curriculum for completeness in terms of the knowledge, skills, and competencies required in the program field. The team reviews the curriculum to ensure that course content in the career and technical education program meets State Education Department regulations, contributes to achievement of state and industry standards, and prepares students for successful completion of a technical assessment. Approved curriculum content is nonduplicative, challenging, organized along a continuum of difficulty, and free of bias.*
>
> *CTE program approval does not constitute Department approval or endorsement of proprietary curriculum or related curriculum products. Program approval indicates only that a school district or BOCES has provided the Department with assurances that the curriculum review has been completed.*

Process

- The school district or BOCES identifies the faculty members and other individuals who will be involved in conducting the curriculum review
- The school district or BOCES determines the procedures used in completing the curriculum review
- Reviewers confirm that CTE program content aligns with state CDOS standards, relevant state academic standards, and related business and industry standards
- Reviewers confirm that CTE program content includes integrated or specialized units of credit
- Reviewers confirm that the CTE program meets unit of credit and other distributive requirements

Documentation

Documentation of the curriculum review is maintained by the school district or BOCES and is updated whenever modifications are made to the approved CTE program. Recommendations from curricular review should be included in the self-study report and reviewed by the external committee.

Resources

New York State graduation requirements

http://www.emsc.nysed.gov/part100/pages/1005.html

Source: http://www.p12.nysed.gov/cte/ctepolicy/guide.html

Automotive Technology

It takes more than the turn of a key to make a car go. Working on today's cars requires an understanding of the science and technology that goes into the modern automobile.

In the Automotive Technology program at the Institute of Technology at Syracuse Central, students spend time in the classroom and then apply what they've learned on real cars in our state-of-the-art facilities.

Training includes diagnosis and repair of all automotive systems using modern tools and diagnostic equipment, with an emphasis on:

- Engine management systems
- Driveability
- Drivetrain systems
- Chassis
- Maintenance

CAREER OPPORTUNITIES:
Professional Mechanic, Body Shop Technician, Automotive Repair, Garage Owner

Course of Study **Automotive Technology**

9th Grade	10th Grade	11th Grade	12th Grade
■ Automotive Tech 100 (AUT100) (1 Credit CTE)	■ Automotive Tech 200 (AUT200) (2 Credits CTE)	■ Automotive Tech 300 (AUT300) (1 Credit CTE) ■ Automotive CTE Integrated Math CTE200 (1 Credit)	■ Automotive Tech 400 (AUT400) (2 Credits CTE) ■ Automotive CTE Integrated ELA CTE400 (1 Credit)

DISTRICT REQUIREMENTS

- Students must pass CTE Automotive Tech Level 100, 200, 300 and 400 to challenge the course approved technical assessment.
- Student will have earned the 11th grade integrated math credit upon successful completion of the CTE Automotive Tech 300.
- Student will have earned the 12th grade integrated ELA credit upon successful completion of the CTE Automotive Tech 200, 300 and 400.
- Student will receive the CTE Endorsement upon successful completion of the CTE Automotive Tech sequence and must pass the prescribed technical assessment and complete a commencement level project.

Return to TOC

Syracuse City School District
Career and Technical Education Program
Course Syllabus
AUT 100: Automotive Technology 100

Program Overview

Automotive Technology is a four-year pathway designed to provide students with basic mechanical knowledge and skills. As an Automotive Service Excellence (ASE) program certified by the National Automotive Technicians Education Foundation (NATEF), students gain knowledge and skills through a combination of theoretical study and hands-on lab work, including brake systems, engine performance diagnosis, suspension and steering, electronic control systems, and on-board computerized engine control systems diagnosis on automobiles and light trucks. This program is the first step in preparing an individual for a career in the technical repair field. Over the course of the program, students will work on skills to help them obtain their New York State Inspection License post-graduation. They will also be provided with internship experiences to apply and improve their knowledge and skills. Students can earn a Career and Technical Endorsement on their diplomas by successfully passing a written and performance-based assessment. Students also have the opportunity to participate in the industry-standard ASE NATEF technical assessments for Maintenance and Light Repair (MLR), as well as optional NATEF assessments for additional certifications.

Course Description

This course is the foundation for Automotive Technology pathway. Students will explore the career options available in the Automotive Technology field as well as the requirements for work as a professional service technician and develop personal short and long-term goals for professional growth. The course emphasizes workplace safety and includes the first steps toward OSHA certification. Classroom and shop activities simulate automotive service industry operations through the use of training aids and shop vehicles. Completion of the course will give students the basic skills for maintenance and repair of an automobile and prepare students for AUT 200: Automotive Technology 200.

Pre-Requisites

N/A

Course Objectives

Upon successful completion of this course, students will:

1. Know the available career options in the field of Automotive Technology.
2. Develop a career plan based on aptitudes and interests.
3. Demonstrate the importance of personal and workplace safety.
4. Use basic automotive tools and equipment.
5. Apply automotive mathematics and measurements.
6. Understand basic automotive systems.
7. Understand automotive service information.
8. Use automotive fasteners, gaskets, seals, and sealants.
9. Understand basic vehicle maintenance and fluid service.
10. Understand tire, wheel, and wheel bearing fundamentals.
11. Develop and improve skills working on basic automotive maintenance.
12. Begin to prepare for ASE certification.

Integrated Academics

N/A

Equipment and Supplies

- **School will provide:** Textbook, up-to-date automotive shop tools, supplies and safety equipment.
- **Student will provide:** Leather work boots or shoes (steel/composite toe preferred), and long work pants with no holes that cover the top of the shoe or boot.

Textbook

Duffy, James E. *Modern Automotive Technology, 8th Edition*. Tinley Park, IL: Goodheart-Willcox Co. Inc., 2014.

Grading

20% Daily Grade (punctuality, preparedness, participation, and behavior)
20% Quizzes
20% Tests
40% Quality of Hands-On Work

Additional Course Policies

N/A

Course Calendar

Quarter	Units of Study
1	• Introduction and Class Expectations • Careers and Certification • Automotive Shop Safety • Automotive Tools and Equipment
2	• Automotive Mathematics and Measurement • Introduction to Automotive Systems • Service Information and Service Orders
3	• Fasteners, Gaskets, Seals, and Sealants • Vehicle Maintenance and Fluid Service
4	• Tires, Wheels, and Bearings • Review and Preparation for Certification and Final Examination

NOTE: This curriculum is aligned to the 2017 NATEF MLR (Maintenance and Light Repair) Task List as indicated by the Priority Task designation:

P-1 – 95% of the items from the MLR Task List are taught in the curriculum.
P-2 – 80% of the items from the MLR Task List are taught in the curriculum.
P-3 – 50% of the items from the MLR Task List are taught in the curriculum.

Syracuse City School District
Career and Technical Education Program
Scope and Sequence
AUT 100: Automotive Technology 100

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
Weeks 1-3 **Introduction and Class Expectations** **Careers and Certification**	• What are the expectations for the automotive technology classroom and shop? • What are some of the career paths within the automotive technology field? • What skills are needed for a successful automotive technology career? • How much education is needed to pursue various careers in the automotive technology? • What types of license or certifications are required to gain employment in the automotive technology field? • What is the role of the automotive technician in the automotive industry? • What are the steps to finding an automotive technology-related job? • What behaviors does an employee need to advance in a career? • Why are successful job-seeking skills required in a competitive marketplace? • How does an automotive technician convey professionalism in the workplace?	• List rules for general classroom and shop safety. • Explain and follow classroom procedures. • List the factors to be considered when developing personal career goals. • Identify and research the different career opportunities that are available under the umbrella of automotive technology. • Describe different types of skills needed for a successful automotive technology career. • List automotive technology jobs available at various educational levels. • Summarize the requirements and process for obtaining a NYS Inspection License and ASE Certification. • Explain the role and duties of an automotive technician. • Describe the components of a successful job application process. • Set up an online professional portfolio. • List actions needed to advance in a career. • Explain the importance of professionalism and ethics in the workplace. • Explain the importance of being prompt, being able to take directions and being motivated to accomplish assigned tasks.	**Written** • Quiz on Class Expectations • Assignment on Careers in Automotive Technology • Automotive Technology Career Research Project and Presentation with Rubric **Performance** • Teacher Observation • Class Expectations Checklist	**Career Ready Practices** CRP 1,2,4,7,8,10,11 **Cluster Standards** TD 1,6 **Pathway Standards** TD-MTN 1	**ELA** 9-10R 1,2,4,7 9-10W 2,4,5,6,7 9-10SL 1,2,4,5,6 9-10L 1,2,3,6 **Literacy** RST 1,2,4,7 WHST 2,4,5,6,7 **Math**
Weeks 4-7 **Automotive Shop Safety**	• Why is safety important in the auto industry? • What do I need to know to keep myself and others safe in the shop? • What is personal protective equipment (PPE)? • Why should technicians follow OSHA guidelines when performing service on an	• Identify general shop safety rules and procedures. • Utilize safe procedures for handling of tools and equipment. • Identify proper placement of floor jacks and jack stands. • Identify proper procedures for safe lift operation. • Utilize proper ventilation procedures for working within the shop area. • Identify marked safety areas.	**Written** • Assignment on PPE • Quizzes • Self-Assessment • S/P2 (Safety and Pollution Prevention) Exams • ASE Task Sheets **Performance**	**Career Ready Practices** CRP 1,2,3,4,5,8,11,12 **Cluster Standards** TD 4,5 **Pathway Standards** TD-MTN 1,2	**ELA** 9-10R 1,2,4,7 9-10W 2,4,5 9-10SL 1,2,6 9-10L 1,2,3,6 **Literacy** RST 1,2,4,7 WHST 2,4,6 **Math**

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
	automobile? • What is a SDS and what information does it contain? • What are Right-to-Know regulations?	• Identify the location and the types of fire extinguishers and other fire safety equipment. • Demonstrate knowledge of the procedures for using fire extinguishers and other fire safety equipment. • Identify the location and use of eye wash stations. • Identify the location of the posted evacuation routes. • Use required personal protective equipment (PPE) including safety glasses, ear protection, gloves, and shoes during shop activities. • Identify and wear appropriate clothing for shop activities. • Secure hair and jewelry for shop activities. • Demonstrate awareness of the safety aspects of high voltage circuits (e.g., high intensity discharge (HID) lamps, ignition systems and injection systems). • Explain the role of OSHA in shop safety. • Locate and demonstrate knowledge of safety data sheets (SDS). • Identify and practice safe use, storage, and disposal of chemicals. • Summarize Right-to-Know regulations including hazardous materials and blood-borne pathogens.	• Safety Checklist • Procedure Checklist • Teacher Observation • Teacher Checklist • ASE Task Sheets		
Weeks 8-10 **Automotive Tools and Equipment**	• Why is it important to use the correct tool for the application? • Why is using a quality tool important? • What determines the measurement system to be used? • Why is using precision measurement tools an important part of the profession? • Why is maintenance of tools important?	• Identify hand and power tools and their usage in automotive applications. • List safety rules for hand and power tools. • Select the right tool for a given job. • Demonstrate safe handling and use of appropriate tools. • Identify standard and metric designation tools. • Demonstrate proper use of commonly used measuring tools. • Demonstrate proper use of precision measuring tools, including micrometers, dial-indicators, and dial-calipers. • Demonstrate proper cleaning, storage, and maintenance of all tools and equipment.	**Written** • Review Assignments on Technical Vocabulary and Industry Acronyms • Research Project and Presentation on Power Tool and Equipment Safety • Quizzes • Self-Assessment • ASE Task Sheets **Performance** • Safety Checklist • Procedure Checklist • Teacher Observation • Teacher Checklist • ASE Task Sheets	**Career Ready Practices** CRP 1,2,3,4,7,8,11,12 **Cluster Standards** TD 4,5 **Pathway Standards** TD-MTN 1	**ELA** 9-10R 1,2,4,7 9-10W 2,4,5,6,7 9-10SL 1,2,4,5,6 9-10L 1,2,3,6 **Literacy** RST 1,2,4,7 WHST 2,4,5,6,7 **Math** N-Q.A.1 N-Q.A.3 7.EE.3
Weeks 11-12 **Automotive**	• How is mathematics used in the automotive industry?	• Identify the practical applications of math in auto repair and maintenance.	**Written** • Assignments on	**Career Ready Practices** CRP 1,2,4,8,11	**ELA** 9-10R 1,2,4 9-10W 2,4,5

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
Mathematics and Measurement	• What is the English system of measurement? • What is the relationship between various English system units of measurement? • What is the metric system of measurement? • What is the relationship between various metric system units of measurement? • What common tools are used for measurement in the automotive industry?	• Demonstrate problem-solving techniques involving whole numbers, fractions, and decimals, using addition, subtraction, multiplication, and division. • Demonstrate techniques for converting fractions to decimals and decimals to fractions. • Describe the English systems of measuring length weight, and volume. • Describe the relationships between various English system units of measurement. • Demonstrate problem-solving techniques for various English system measuring problems. • Demonstrate measuring techniques using common English system measuring tools. • Describe the metric system of measuring length, weight, and volume. • Describe the relationships between various metric system units of measurement. • Demonstrate problem-solving techniques for various metric system measuring problems. • Demonstrate measuring techniques using common metric system measuring tools. • Demonstrate problem-solving techniques using percentages. • Demonstrate techniques for reading and interpreting graphs. • Demonstrate techniques for using a calculator.	Mathematical Operations and Measurement • Quizzes • Self-Assessment **Performance** • Measurement Task: English and Metric Measurement • Safety Checklist • Procedure Checklist • Teacher Observation • Teacher Checklist		9-10SL 1,2,6 9-10L 1,2,3,6
				Cluster Standards TD 2	**Literacy** RST 1,2,4 WHST 2,4
				Pathway Standards TD-MTN 1	**Math** 6.NS.1 5.NF.1 5.NF.2 5.MD.1 N-Q.1 N-Q.3 F-IF.4 6.RP.3c 6.RP.3d
Weeks 13-18 **Introduction to Automotive Systems**	• How do automotive systems work together to keep a car functioning well? • How do different engines components work? • What is the difference between a part, an assembly, and a system? • What is the function of the vehicle's body and frame? • How does the engine provide power for propulsion and electrical systems? • How does the computer system control various auto assemblies? • How does the fuel system provide the correct mixture of air and fuel to the engine? • What is the importance of the electrical system? • What is the function of the	• Identify the operation and functions of automotive systems and basic engine components. • Explain how automotive systems and basic engine components relate to each other. • Explain the major events that have influenced the development of the automobile during the last 40 years. • Differentiate between an automotive part, an assembly, and a system. • Identify and describe primary parts and assemblies within major automotive systems, including frame, body, and chassis, fuel system, engine, computer system, fuel system, electrical system, cooling and lubrication systems, exhaust and emission control systems, drive train systems, suspension, steering, and brake systems, and accessory and safety systems. • Explain the electronic interaction of major automotive systems or circuits. • Describe and compare major automobile design variations.	**Written** • Assignments on Technical Vocabulary and Industry Acronyms • Automotive Systems Identification Diagram • Research Project and Presentation on the History of the Automobile by Decade • Quizzes • Self-Assessment • ASE Task Sheets **Performance** • Safety Checklist • Procedure Checklist • Teacher Observation • Teacher Checklist • ASE Task Sheets	**Career Ready Practices** CRP 1,2,4,7,8,11,12	**ELA** 9-10R 1,2,4,5 9-10W 2,4,5,6,7 9-10SL 1,2,4,5,6 9-10L 1,2,3,6
				Cluster Standards TD 2,5	**Literacy** RST 1,2,4, WHST 2,4,5,6,7
				Pathway Standards TD-MTN 1	**Math** 6.G.2 6.RP.3d 7.RP.1 N-Q.1 N-Q.3 7.EE.3 A-REI.2 A-CED.4 5.NF.1 5.NF.2

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
	cooling system? • Why is the lubrication system important? • Why do modern cars have emission control systems? • What is the connection between the drive train systems, the engine, and the drive wheels? • How do suspension, steering, and brake systems control vehicle handling? • What kinds of accessories and safety systems are standard in today's cars?	• Identify and locate the most important systems used to operate both conventional and hybrid passenger vehicles. • Explain how the body and frame support, stop, and enclose a vehicle. • Explain how the engine provides power for both propulsion and electrical systems. • Explain how the computer system uses electronic and electrical devices to monitor and control various auto assemblies. • Explain how the fuel system provides the correct mixture of air and fuel for efficient and complete combustion. • Explain the importance of the electrical systems in operating the electrical-electronic circuits, components, and devices. • Describe how the cooling system maintains a constant operating temperature for improved combustion efficiency. • Explain how the lubrication system reduces friction between moving parts inside the engine. • Explain how the emission control systems reduce air pollution produced by the vehicle. • Explain how the drive train systems transfer turning force from the engine crankshaft and/or the motor-generator to the drive wheels. • Describe how suspension, steering, and brake systems support and control vehicle handling, maneuvering, and deceleration. • Explain how current automotive accessory and safety systems increase passenger comfort, safety, security, and convenience.			
Weeks 19-20 **Service Information and Service Orders**	• What information does a service manual provide? • What are the advantages of using computer-based service manuals? • What kinds of information are needed on a service order?	• Describe and demonstrate how to use different types of service manuals. • Locate and use the service manual index and contents sections. • Explain the different kinds of information and illustrations used in a service manual. • Describe the three basic types of troubleshooting charts found in service manuals. • Explain and demonstrate how to use computer-based service information. • Describe the advantages of using computer-based service information over service manuals in finding technical information. • Describe the information needed on a service order. • Demonstrate use of the three C's (concern, cause, and correction).	**Written** • Assignments on Technical Vocabulary and Industry Acronyms • Service Manual Scavenger Hunt • Quizzes • Self-Assessment • ASE Task Sheets **Performance** • Safety Checklist • Procedure Checklist • Teacher Observation • Teacher Checklist • ASE Task Sheets	**Career Ready Practices** CRP 1,2,4,7,8,11,12 **Cluster Standards** TD 2,5 **Pathway Standards** TD-MTN 1	**ELA** 9-10R 1,2,4,5 9-10W 2,4,5 9-10SL 1,2,6 9-10L 1,2,3,6 **Literacy** RST 1,2,4,7 WHST 2,4,7 **Math** 7.EE.3

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
		• Complete a service order to include customer information, vehicle identifying information, customer concern, related service history, cause, and correction. • Explain how repair costs can be estimated.			
Weeks 21-24 **Fasteners, Gaskets, Seals, and Sealants**	• What kinds of fasteners are used on today's vehicles? • What is bolt size? • What is the difference between a flat washer and a lock washer? • What is tensile strength, or grade of a fastener? • What are torque specifications? • What is a bolt or nut tightening sequence? • How is a thread repair insert used? • What is the function of gaskets and seals?	• Identify commonly used automotive fasteners, including bolts, nuts, washers, and screws. • Define the terms bolt and nut. • List and explain the four basic dimensions of a bolt. • Describe the difference between a flat washer and a lock washer. • Explain tensile strength, or grade of a fastener. • Explain torque specifications and where to find them. • Explain the sequence for tightening a bolt or nut. • Select and use fasteners properly. • Describe six ways to remove broken fasteners. • Describe the proper methods for repairing thread damage. • Perform fastener and thread repair (e.g. remove broken bolt, restore internal and external threads, repair internal threads with thread insert). P-1 • Remove, select, and install gaskets, seals, and sealants correctly. • Install engine covers using gaskets, seals, and sealers as required. P-1 • Describe five rules for working with seals. • Summarize safety rules relating to fasteners, gaskets, seals, and sealants.	**Written** • Assignments on Technical Vocabulary and Industry Acronyms • Bolt Information Diagram • Quizzes • Self-Assessment • ASE Task Sheets **Performance** • Safety Checklist • Procedure Checklist • Teacher Observation • Teacher Checklist • ASE Task Sheets	**Career Ready Practices** CRP 1,2,4,7,8,11 **Cluster Standards** TD 2,5 **Pathway Standards** TD-MTN 1	**ELA** 9-10R 1,2,4,5 9-10W 2,4,5 9-10SL 1,2,6 9-10L 1,2,3,6 **Literacy** RST 1,2,4,7 WHST 2,4,7 **Math** 7.EE.3 6.G.1 7.RP.2c
Weeks 25-32 **Vehicle Maintenance and Fluid Service**	• What is the importance of preventive maintenance? • How are preventive maintenance procedures determined for a particular vehicle? • What is a service interval? • What kinds of fluids are required for preventive maintenance? • What steps does lubrication service typically involve? • What are the steps in an oil change? • What automotive items are required to be recycled?	• Explain the importance of preventive maintenance and give examples. • Explain how the design of a vehicle determines what preventive maintenance procedures must be followed. • Explain how a vehicle and its systems can be defined by deciphering its VIN. • Explain what a service interval is and where to find that information for a specific vehicle. • Research vehicle service information, including fluid type, vehicle service history, service precautions, and technical service bulletins. P-1 • Describe six general inspection points that should be checked during vehicle maintenance. • List and explain the use of five different lubricants. • Describe the differences between the fluids required for preventive maintenance and how to	**Written** • Assignments on Technical Vocabulary and Industry Acronyms • Chart of Fluid Types • Quizzes • Self-Assessment • ASE Task Sheets **Performance** • Safety Checklist • Procedure Checklist • Teacher Observation • Teacher Checklist • ASE Task Sheets	**Career Ready Practices** CRP 1,2,3,4,5,7,8,11,12 **Cluster Standards** TD 2,5 **Pathway Standards** TD-MTN 1	**ELA** 9-10R 1,2,4,5 9-10W 2,4,5 9-10SL 1,2,6 9-10L 1,2,3,6 **Literacy** RST 1,2,4,7 WHST 2,4,7 **Math** N-Q.1 N-Q.3

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
		select the correct one for a particular vehicle. • Describe how to check a car's fluid levels and locate fluid leaks, including engine oil, engine coolant, power steering fluid, transmission fluid, brake fluid, and battery condition. • Describe how to replace engine oil and oil filter. • Perform engine oil and filter change; use proper fluid type per manufacturer specification; reset maintenance reminder as required. P-1 • Check fluid level in a transmission or a transaxle equipped with a dip-stick. P-1 • Check fluid level in a transmission or a transaxle not equipped with a dip-stick. P-1 • Check transmission fluid condition; check for leaks. P-2 • Inspect transmission for leakage at external seals, gaskets, and bushings. P-1 • Drain and replace transmission fluid and filter(s); use proper fluid type per manufacturer specification. P-1 • Identify components of the lubrication and cooling systems. P-1 • Inspect engine assembly for fuel, oil, coolant, and other leaks; determine necessary action. P-1 • Perform cooling system pressure and dye tests to identify leaks; check coolant condition and level; inspect and test radiator, pressure cap, coolant recovery tank, and heater core and galley plugs; determine necessary action. P-1 • Inspect and test coolant; drain and recover coolant; flush and refill cooling system; use proper fluid type per manufacturer specification; bleed air as required. P-1 • Inspect, replace, and adjust drive belts, tensioners, and pulleys; check pulley and belt alignment. P-1 • Remove, inspect, and replace thermostat and gasket/seal. P-1 • Inspect power steering fluid level and condition. P-1 • Inspect for power steering fluid leakage. P-1 • List four automotive items that should be recycled. • Demonstrate safe practices while working with vehicle fluids.			
Weeks 33-37 **Tire, Wheels, and Bearings**	• How do tires and wheels affect the operation of a vehicle? • How can tire wear patterns indicate tire problems?	• Describe different types of tire construction and identify tire markings. • Identify the parts of a tire and wheel assembly. • Describe different methods of tire construction.	**Written** • Assignments on Technical Vocabulary and Industry	**Career Ready Practices** CRP 1,2,3,4,7,8,11,12	**ELA** 9-10R 1,2,4,5 9-10W 2,4,5,6,7 9-10SL 1,2,4,5,6 9-10L 1,2,3,6

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
	• Where is information on tire-pressure specifications found? • What might happen if tires are not rotated at manufacturer recommended intervals? • What is the difference between static and dynamic balance? • What is a tire-pressure monitoring system (TPMS) sensor? • What precautions should be taken when dismounting TPMS tires? • What is the difference between air loss from the tire and air loss from the wheel? • How can tires be repaired?	• Explain types and sizes of tires. • Describe tire ratings and designations. • Describe different types of wheels. • Inspect tire condition; identify wear patterns; check for correct size, application (load and speed ratings), and air pressure as listed on the tire information placard/label. P-1 • Rotate tires according to manufacturer's recommendations including vehicles equipped with TPMS. P-1 • Dismount, inspect, and remount tire on wheel; balance wheel and tire assembly. P-1 • Dismount, inspect, and remount tire on wheel equipped with TPMS sensor. P-1 • Inspect tire and wheel assembly for air loss; determine necessary action. P-1 • Repair tire following vehicle manufacturer approved procedure. P-1 • Identify indirect and direct TPMS; calibrate system; verify operation of instrument panel lamps. P-1	Acronyms • Tire Specifications Diagram • Tire Research Project and Presentation • Quizzes • Self-Assessment • ASE Task Sheets **Performance** • Safety Checklist • Procedure Checklist • Teacher Observation • Teacher Checklist • ASE Task Sheets	**Cluster Standards** TD 2,5 **Pathway Standards** TD-MTN 1	**Literacy** RST 1,2,4,7 WHST 2,4,5,6,7 **Math** 7.EE.3 7.RP.1
Weeks 38-40 **Review and Preparation for Certification and Final Examination**	• What were the main learning goals for this past year in automotive technology?	• Review knowledge and skills from the year in preparation for ASE Certification and Final Examination. • Complete the written and performance assessments demonstrating a thorough knowledge of automotive technology.	**Written** • Review Assignments on Technical Vocabulary and Industry Acronyms • Review Quizzes • Self-Assessment • ASE Certification Exams **Performance** • Safety Checklist • Procedure Checklist • Teacher Observation • Teacher Checklist • ASE Certification Exams	**Career Ready Practices** CRP 1,2,4,6,7,11 **Cluster Standards** TD 1,2,4,5,6 **Pathway Standards** TD-MTN 1,2	**ELA** 9-10R 1,2,4,5 9-10W 2,4,5 9-10SL 1,2,6 9-10L 1,2,3,6 **Literacy** RST 1,2,4,5,6,7 WHST 2,4,7 **Math**

Return to TOC

Syracuse City School District
Career and Technical Education Program
Course Syllabus
AUT 200: Automotive Technology 200

Program Overview

Automotive Technology is a four-year pathway designed to provide students with basic mechanical knowledge and skills. As an Automotive Service Excellence (ASE) program certified by the National Automotive Technicians Education Foundation (NATEF), students gain knowledge and skills through a combination of theoretical study and hands-on lab work, including brake systems, engine performance diagnosis, suspension and steering, electronic control systems, and on-board computerized engine control systems diagnosis on automobiles and light trucks. This program is the first step in preparing an individual for a career in the technical repair field. Over the course of the program, students will work on skills to help them obtain their New York State Inspection License post-graduation. They will also be provided with internship experiences to apply and improve their knowledge and skills. Students can earn a Career and Technical Endorsement on their diplomas by successfully passing a written and performance-based assessment. Students also have the opportunity to participate in the industry-standard ASE NATEF technical assessments for Maintenance and Light Repair (MLR), as well as optional NATEF assessments for additional certifications.

Course Description

This course is the second in the four-year Automotive Technology pathway. Students will continue to explore the career options available in the Automotive Technology field as well as the requirements for work as a professional service technician and develop personal short and long-term goals for professional growth. The course emphasizes safety in the operation and repair of the automotive steering, suspension, and brake systems. Classroom and shop activities simulate automotive service industry operations through the use of training aids and shop vehicles. Completion of the course will give students the basic skills for the maintenance, and repair of automotive steering, suspension and brake systems and will prepare students for AUT 300: Automotive Technology 300.

Pre-Requisites

AUT 100: Automotive Technology 100

Course Objectives

Upon successful completion of this course, students will:

1. Develop a career plan based on aptitudes and interests.
2. Demonstrate the importance of personal and workplace safety.
3. Use automotive mathematics and measurements.
4. Use automotive service information.
5. Develop and improve skills working on automotive steering, suspension, and brake systems.
6. Understand wheel and wheel bearing fundamentals.
7. Perform automotive alignments.
8. Prepare for ASE steering and suspension and ASE brake certifications.

Integrated Academics

N/A

Equipment and Supplies

- **School will provide:** Textbook, up-to-date automotive shop tools, supplies and safety equipment.
- **Student will provide:** Leather work boots or shoes (steel/composite toe preferred), and long work pants with no holes that cover the top of the shoe or boot.

Textbook

Duffy, James E. *Modern Automotive Technology, 8th Edition*. Tinley Park, IL: Goodheart-Willcox Co. Inc., 2014.

Grading

20% Daily Grade (punctuality, preparedness, participation, and behavior)
20% Quizzes
20% Tests
40% Quality of Hands-On Work

Additional Course Policies

N/A

Course Calendar

Quarter	Units of Study

1	• Class Expectations
	• Careers and Certification
	• Safety Review
	• Steering and Suspension
	  o Basic Steering and Suspension Systems
	  o Steering Systems

2	• Steering and Suspension
	  o Suspension Systems
	  o Wheel Alignment

3	• Brakes
	  o Basic Braking Systems
	  o Hydraulic System
	  o Drum Brakes

4	• Brakes
	  o Disc Brakes
	  o Power Assist Units
	  o Related Systems – Wheel Bearings, Parking Brakes, Electrical
	  o Electronic Brakes and Traction and Stability Control Systems
	• Review and Preparation for Certification and Final Examination

NOTE: This curriculum is aligned to the 2017 NATEF MLR (Maintenance and Light Repair) Task List as indicated by the Priority Task designation:

P-1 – 95% of the items from the MLR Task List are taught in the curriculum.
P-2 – 80% of the items from the MLR Task List are taught in the curriculum.
P-3 – 50% of the items from the MLR Task List are taught in the curriculum.

Syracuse City School District
Career and Technical Education Program
Scope and Sequence
AUT 200: Automotive Technology 200

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
Weeks 1-2 **Class Expectations** **Careers and Certification**	• What are the expectations for the automotive technology classroom and shop? • What are some of the career paths within the automotive technology field? • What are the steps to finding an automotive technology-related job? • Why are successful job-seeking skills required in a competitive marketplace? • How does an automotive technician convey professionalism in the workplace?	• Explain the rules for general classroom and shop safety. • Explain and follow classroom procedures. • Identify and research a specific career opportunity of interest including the required skills, education, and certifications. • Compare the requirements and process for obtaining ASE Certification with individual progress toward that goal. • Describe the components of a successful job application process. • Update an online professional portfolio with a cover letter and resume. • Demonstrate professionalism and ethics in the workplace. • Complete an employability profile.	**Written** • Quiz on Class Expectations • Automotive Technology Career Research Project and Presentation with Rubric • Online Portfolio • Employability Profile **Performance** • Teacher Observation • Class Expectations Checklist	**Career Ready Practices** CRP 1,2,4,7,8,10,11 **Cluster Standards** TD 1,6 **Pathway Standards** TD-MTN 1	**ELA** 9-10R 1,2,4,7 9-10W 2,4,5,6,7 9-10SL 1,2,4,5,6 9-10L 1,2,3,6 **Literacy** RST 1,2,4,7 WHST 2,4,5,6,7 **Math**
Week 3 **Safety Review**	• Why is safety important in the auto industry? • What do I need to know to keep myself and others safe in the shop? • What is personal protective equipment (PPE)? • Why should technicians follow OSHA guidelines when performing service on an automobile? • What is a SDS and what information does it contain? • What are Right-to-Know regulations?	• Review and follow general shop safety rules and procedures. • Utilize safe procedures for handling of tools and equipment. • Use proper placement of floor jacks and jack stands. • Use proper procedures for safe lift operation. • Utilize proper ventilation procedures for working within the lab/shop area. • Identify and follow marked safety areas. • Demonstrate knowledge of the procedures for using fire extinguishers and other fire safety equipment. • Explain the use of eye wash stations. • Identify posted evacuation routes. • Use required personal protective equipment (PPE) including safety glasses, ear protection, gloves, and shoes during shop activities. • Identify and wear appropriate clothing for shop activities. • Secure hair and jewelry for shop activities. • Demonstrate awareness of the safety aspects of high voltage circuits (e.g., high intensity discharge (HID) lamps, ignition systems and injection systems). • Explain the role of OSHA in shop safety.	**Written** • Review Assignment on PPE, OSHA, Right-to-Know • Quizzes • Self-Assessment • S/P2 (Safety and Pollution Prevention) Exams • ASE Task Sheets **Performance** • Safety Checklist • Procedure Checklist • Teacher Observation • Teacher Checklist • ASE Task Sheets	**Career Ready Practices** CRP 1,2,3,4,5,8,11,12 **Cluster Standards** TD 4,5 **Pathway Standards** TD-MTN 1,2	**ELA** 9-10R 1,2,4,7 9-10W 2,4,5 9-10SL 1,2,6 9-10L 1,2,3,6 **Literacy** RST 1,2,4,7 WHST 2,4,6 **Math**

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
		• Demonstrate use of safety data sheets (SDS). • Practice safe use, storage, and disposal of chemicals. • Summarize Right-to-Know regulations including hazardous materials and blood-borne pathogens. • Follow safety rules for hand and power tools.			
Weeks 4-5 **Steering and Suspension: Basic Steering and Suspension Systems**	• What are the components of suspension and steering systems? • How do suspension and steering systems affect drivability and safety?	• Identify suspension and steering system components and configurations. P-1 • Locate and interpret vehicle and major component identification numbers. • Describe the function of suspension and steering control systems and components, (i.e. active suspension, and stability control). P-3	**Written** • Assignment on Technical Vocabulary and Industry Acronyms • Quizzes • Self-Assessment **Performance** • Safety Checklist • Procedure Checklist • Teacher Observation • Teacher Checklist	**Career Ready Practices** CRP 1,2,4,8,11,12 **Cluster Standards** TD 2,5 **Pathway Standards** TD-MTN 1	**ELA** 9-10R 1,2,4,5 9-10W 2,4,5 9-10SL 1,2,6 9-10L 1,2,3,6 **Literacy** RST 1,2,4,7 WHST 2,4,7 **Math** 7.G.2
Weeks 6-11 **Steering and Suspension: Steering Systems**	• What are the components of the steering system? • How do steering systems affect drivability and safety? • How are steering system components diagnosed and repaired or replaced?	• Identify typical steering system components and their functions. • Identify the basic types of steering linkage systems. • Identify the components in a manual rack and pinion steering arrangement and describe their function. • Describe the similarities and differences between parallelogram, worm and roller, and rack and pinion steering linkage systems. • Explain the difference between active and passive restraint systems. • Identify the major parts of a typical air bag system. • Research vehicle service information, including fluid type, vehicle service history, service precautions, and technical service bulletins. P-1 • Disable and enable supplemental restraint system (SRS); verify indicator lamp operation. P-1 • Safely inspect, diagnose and service an air bag assembly. • Inspect power steering fluid level and condition. P-1 • Inspect for power steering fluid leakage. P-1 • Inspect rack and pinion steering gear inner tie rod ends (sockets) and bellows boots. P-1 • Flush, fill, and bleed power steering system; use proper fluid type per manufacturer specification. P-2	**Written** • Assignment on Technical Vocabulary and Industry Acronyms • Quizzes • Self-Assessment • ASE Task Sheets **Performance** • Safety Checklist • Procedure Checklist • Teacher Observation • Teacher Checklist • ASE Task Sheets	**Career Ready Practices** CRP 1,2,4,8,11,12 **Cluster Standards** TD 2,5 **Pathway Standards** TD-MTN 1	**ELA** 9-10R 1,2,4,5 9-10W 2,4,5 9-10SL 1,2,6 9-10L 1,2,3,6 **Literacy** RST 1,2,4,7 WHST 2,4,7 **Math** 7.G.2 6.RP.3c A-CED.4 N-Q.1 N-Q.3

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
		• Remove, inspect, replace, and/or adjust power steering pump drive belt. P-1 • Inspect and replace power steering hoses and fittings. P-2 • Inspect pitman arm, relay (centerlink/intermediate) rod, idler arm, mountings, and steering linkage damper. P-1 • Inspect electric power steering assist system. P-2 • Identify hybrid vehicle power steering system electrical circuits and safety precautions. P-2			
Weeks 12-17 **Steering and Suspension: Suspension Systems**	• What are the components of the suspension system? • How does the suspension system affect drivability and safety? • How are suspension system components diagnosed and repaired or replaced?	• Explain the basic towing, lifting, jacking, and service precautions that must be followed when servicing air springs and other electronic suspension components. • Identify suspension system components and configurations. P-1 • Identify the three basic types of rear suspensions and explain their effects on traction and tire wear. • Identify the various types of springs, their functions, and their locations in the rear-axle housing. • Explain the function of electronic suspension components including air compressors, sensors, control modules, air shocks, electronic shock absorbers, and electronic struts. • Perform a general front-end inspection. • Inspect tie rod ends (sockets), tie rod sleeves, and clamps. P-1 • Inspect upper and lower control arms, bushings, and shafts. P-1 • Inspect and replace rebound bumpers. P-1 • Inspect track bar, strut rods/radius arms, and related mounts and bushings. P-1 • Inspect upper and lower ball joints (with or without wear indicators). P-1 • Inspect suspension system coil springs and spring insulators (silencers). P-1 • Inspect suspension system torsion bars and mounts. P-1 • Inspect and/or replace front/rear stabilizer bar (sway bar) bushings, brackets, and links. P-1 • Inspect, remove, and/or replace strut cartridge or assembly; inspect mounts and bushings. P-2 • Inspect front strut bearing and mount. P-1 • Inspect rear suspension system lateral links/arms (track bars), control (trailing) arms. P-1	**Written** • Assignment on Technical Vocabulary and Industry Acronyms • Quizzes • Self-Assessment • ASE Task Sheets **Performance** • Safety Checklist • Procedure Checklist • Teacher Observation • Teacher Checklist • ASE Task Sheets	**Career Ready Practices** CRP 1,2,4,8,11,12 **Cluster Standards** TD 2,5 **Pathway Standards** TD-MTN 1	**ELA** 9-10R 1,2,4,5 9-10W 2,4,5 9-10SL 1,2,6 9-10L 1,2,3,6 **Literacy** RST 1,2,4,7 WHST 2,4,7 **Math** 7.RP.3

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
		• Inspect rear suspension system leaf spring(s), spring insulators (silencers), shackles, brackets, bushings, center pins/bolts, and mounts. P-1 • Inspect, remove, and/or replace shock absorbers; inspect mounts and bushings. P-1			
Weeks 18-21 **Steering and Suspension: Wheel Alignment**	• How do wheel alignments affect drivability and tire performance? • How do tires and wheels affect the operation of a vehicle?	• Explain the benefits of accurate wheel alignment. • Explain the importance of correct wheel alignment angles. • Identify the purposes of steering axis inclination in diagnosing alignment problems. • Identify the purposes of turning radius, or toe-out in turns, in understanding alignment dynamics when the vehicle is moving. • Describe the various types of equipment that can be used to align the wheels of a vehicle. • Describe how alignment angles can be changed on a vehicle. • Explain the difference between two-wheel and four-wheel alignment procedures. • Perform pre-alignment inspection and measure vehicle ride height. P-1 • Describe alignment angles (camber, caster, and toe). P-1 • Perform an alignment. • Identify and explain steering sensor calibration requirements needed after an alignment.	**Written** • Assignment on Technical Vocabulary and Industry Acronyms • Quizzes • Self-Assessment • ASE Task Sheets **Performance** • Safety Checklist • Procedure Checklist • Teacher Observation • Teacher Checklist • ASE Task Sheets	**Career Ready Practices** CRP 1,2,4,8,11,12 **Cluster Standards** TD 2,5 **Pathway Standards** TD-MTN 1	**ELA** 9-10R 1,2,4,5 9-10W 2,4,5 9-10SL 1,2,6 9-10L 1,2,3,6 **Literacy** RST 1,2,4,7 WHST 2,4,7 **Math** 7.G.4
Week 22 **Brakes: Basic Braking Systems**	• How do advancements on today's vehicles enhance driver safety? • How do different braking systems affect vehicle control when stopping? • How have electronics affected today's braking systems? • How are different brake systems diagnosed and repaired or replaced?	• Explain the basic principles of braking, including kinetic and static friction, friction materials, application pressure, and heat dissipation. • Describe the operation of drum and disc brakes. • Identify brake system components and configuration. P-1 • Explain the function of brake system components. • Describe the properties of brake fluid. • Describe procedure for performing a road test to check brake system operation, including an anti-lock brake system (ABS). P-1 • Install wheel and torque lug nuts. P-1	**Written** • Assignment on Technical Vocabulary and Industry Acronyms • PBL Project on Brakes • Quizzes • Self-Assessment • ASE Task Sheets **Performance** • Safety Checklist • Procedure Checklist • Teacher Observation • Teacher Checklist • ASE Task Sheets	**Career Ready Practices** CRP 1,2,4,7,8,11,12 **Cluster Standards** TD 2,5 **Pathway Standards** TD-MTN 1	**ELA** 9-10R 1,2,4,5 9-10W 2,4,5,6,7 9-10SL 1,2,4,5,6 9-10L 1,2,3,6 **Literacy** RST 1,2,4,7,8 WHST 2,4,5,6,7 **Math** 7.EE.3 8.EE.7b
Weeks 23-24 **Brakes: Hydraulic System**	• How do advancements on today's vehicles enhance driver safety? • How do different braking systems affect vehicle control when stopping?	• Describe the components of a hydraulic brake system and their operation, including brake lines and hoses, master cylinders, system control valves, and safety switches. • Describe proper brake pedal height, travel, and feel. P-1	**Written** • Assignment on Technical Vocabulary and Industry Acronyms • PBL Project on Brakes • Quizzes	**Career Ready Practices** CRP 1,2,4,7,8,11,12 **Cluster Standards** TD 2,5	**ELA** 9-10R 1,2,4,5 9-10W 2,4,5,6,7 9-10SL 1,2,4,5,6 9-10L 1,2,3,6 **Literacy** RST 1,2,4,7,8

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
	• How have electronics affected today's braking systems? • How are different brake systems diagnosed and repaired or replaced?	• Check master cylinder for external leaks and proper operation. P-1 • Inspect brake lines, flexible hoses, and fittings for leaks, dents, kinks, rust, cracks, bulging, wear, loose fittings/supports. P-1 • Select, handle, store, and fill brake fluids to proper level; use proper fluid type per manufacturer specification. P-1 • Identify components of hydraulic brake warning light system. P-3 • Bleed and/or flush brake system. P-1 • Test brake fluid for contamination. P-1	• Self-Assessment • ASE Task Sheets **Performance** • Safety Checklist • Procedure Checklist • Teacher Observation • Teacher Checklist • ASE Task Sheets		WHST 2,4,5,6,7
				Pathway Standards TD-MTN 1	**Math** 6.G.1 7.EE.3 8.EE.7b
Weeks 25-28 **Brakes: Drum Brakes**	• How do advancements on today's vehicles enhance driver safety? • How do different braking systems affect vehicle control when stopping? • How have electronics affected today's braking systems? • How are different brake systems diagnosed and repaired or replaced?	• Identify the major components of a typical drum brake and describe their functions. • Explain the difference between duo-servo and non-servo drum brakes. • Recognize conditions that adversely affect the performance of drums, shoes, linings, and related hardware. • Remove, clean, and inspect brake drum; measure brake drum diameter; determine serviceability. P-1 • Refinish brake drum and measure final drum diameter; compare with specification. P-1 • Remove, clean, inspect and/or replace brake shoes, springs, pins, clips, levers, adjusters/self-adjusters, other related brake hardware, and backing support plates; lubricate and reassemble. P-1 • Inspect wheel cylinders for leaks and proper operation; remove and replace as necessary. P-2 • Pre-adjust brake shoes and parking brake; install brake drums or drum/hub assemblies and wheel bearings; make final checks and adjustments. P-1	**Written** • Assignment on Technical Vocabulary and Industry Acronyms • PBL Project on Brakes • Quizzes • Self-Assessment • ASE Task Sheets **Performance** • Safety Checklist • Procedure Checklist • Teacher Observation • Teacher Checklist • ASE Task Sheets	**Career Ready Practices** CRP 1,2,4,7,8,11,12	**ELA** 9-10R 1,2,4,5 9-10W 2,4,5,6,7 9-10SL 1,2,4,5,6 9-10L 1,2,3,6
				Cluster Standards TD 2,5	**Literacy** RST 1,2,4,7,8 WHST 2,4,5,6,7
				Pathway Standards TD-MTN 1	**Math** 8.EE.7b
Weeks 29-32 **Brakes: Disc Brakes**	• How do advancements on today's vehicles enhance driver safety? • How do different braking systems affect vehicle control when stopping? • How have electronics affected today's braking systems? • How are different brake systems diagnosed and repaired or replaced?	• Identify disc brake components and three types of calipers used. • Describe five types of problems associated with disc brakes. • Describe the procedure for removing and replacing disc brakes. • Remove and clean caliper assembly; inspect for leaks and damage/wear; determine necessary action. P-1 • Inspect caliper mounting and slides/pins for proper operation, wear, and damage; determine necessary action. P-1 • Remove, inspect, and/or replace brake pads	**Written** • Assignment on Technical Vocabulary and Industry Acronyms • PBL Project on Brakes • Quizzes • Self-Assessment • ASE Task Sheets **Performance** • Safety Checklist • Procedure Checklist • Teacher Observation	**Career Ready Practices** CRP 1,2,4,7,8,11,12	**ELA** 9-10R 1,2,4,5 9-10W 2,4,5,6,7 9-10SL 1,2,4,5,6 9-10L 1,2,3,6
				Cluster Standards TD 2,5	**Literacy** RST 1,2,4,7,8 WHST 2,4,5,6,7
				Pathway Standards TD-MTN 1	**Math**

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
		and retaining hardware; determine necessary action. P-1 • Lubricate and reinstall caliper, brake pads, and related hardware; seat brake pads and inspect for leaks. P-1 • Clean and inspect rotor and mounting surface, measure rotor thickness, thickness variation, and lateral runout; determine necessary action. P-1 • Remove and reinstall/replace rotor. P-1 • Refinish rotor on vehicle; measure final rotor thickness and compare with specification. P-1 • Refinish rotor off vehicle; measure final rotor thickness and compare with specification. P-1 • Retract and re-adjust caliper piston on an integral parking brake system. P-2 • Check brake pad wear indicator; determine necessary action. P-1 • Describe importance of operating vehicle to burnish/break-in replacement brake pads according to manufacturer's recommendation. P-1	• Teacher Checklist • ASE Task Sheets		
Weeks 33-34 **Brakes: Power Assist Units**	• How do advancements on today's vehicles enhance driver safety? • How do different braking systems affect vehicle control when stopping? • How have electronics affected today's braking systems? • How are different brake systems diagnosed and repaired or replaced?	• Describe the operation and components of both vacuum-assist and hydraulic-assist braking units. • Check brake pedal travel with, and without, engine running to verify proper power booster operation. P-2 • Identify components of the brake power assist system (vacuum and hydraulic); check vacuum supply (manifold or auxiliary pump) to vacuum-type power booster. P-1	**Written** • Assignment on Technical Vocabulary and Industry Acronyms • PBL Project on Brakes • Quizzes • Self-Assessment • ASE Task Sheets **Performance** • Safety Checklist • Procedure Checklist • Teacher Observation • Teacher Checklist • ASE Task Sheets	**Career Ready Practices** CRP 1,2,4,7,8,11,12 **Cluster Standards** TD 2,5 **Pathway Standards** TD-MTN 1	**ELA** 9-10R 1,2,4,5 9-10W 2,4,5,6,7 9-10SL 1,2,4,5,6 9-10L 1,2,3,6 **Literacy** RST 1,2,4,7,8 WHST 2,4,5,6,7 **Math**
Weeks 35-36 **Brakes: Related Systems – Wheel Bearings, Parking Brakes, Electrical**	• How do advancements on today's vehicles enhance driver safety? • How do different braking systems affect vehicle control when stopping? • How have electronics affected today's braking systems? • How are different brake systems diagnosed and repaired or replaced?	• Remove, clean, inspect, repack, and install wheel bearings; replace seals; install hub and adjust bearings. P-1 • Describe the operation of both rear disc/drum (auxiliary drum) parking brakes and caliper-actuated parking brakes. • Check parking brake components for wear, binding, and corrosion; clean, lubricate, adjust, and/or replace as needed. P-2 • Check parking brake operation and parking brake indicator light system operation; determine necessary action. P-1	**Written** • Assignment on Technical Vocabulary and Industry Acronyms • PBL Project on Brakes • Quizzes • Self-Assessment • ASE Task Sheets **Performance** • Safety Checklist • Procedure Checklist	**Career Ready Practices** CRP 1,2,4,7,8,11,12 **Cluster Standards** TD 2,5 **Pathway Standards** TD-MTN 1	**ELA** 9-10R 1,2,4,5 9-10W 2,4,5,6,7 9-10SL 1,2,4,5,6 9-10L 1,2,3,6 **Literacy** RST 1,2,4,7,8 WHST 2,4,5,6,7 **Math**

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
		• Check operation of brake stop light system. P-1 • Replace wheel bearing and race. P-2 • Inspect and replace wheel studs. P-1	• Teacher Observation • Teacher Checklist • ASE Task Sheets		
Weeks 37-38 **Brakes: Electronic Brakes and Traction and Stability Control Systems**	• How do advancements on today's vehicles enhance driver safety? • How do different braking systems affect vehicle control when stopping? • How have electronics affected today's braking systems? • How are different brake systems diagnosed and repaired or replaced?	• Explain how antilock brake systems work to bring a vehicle to a controlled stop. • Describe the differences between an integrated and a nonintegrated antilock brake system. • Describe the major components of both two-wheel and four-wheel antilock brake systems. • Explain the best procedure for finding ABS faults. • List the precautions that should be followed whenever working on an antilock brake system. • Identify traction control/vehicle stability control system components. P-3 • Describe the operation of the major components of automatic traction and stability control systems. • Describe the operation of a regenerative braking system. P-3	**Written** • Assignment on Technical Vocabulary and Industry Acronyms • PBL Project on Brakes • Quizzes • Self-Assessment • ASE Task Sheets **Performance** • Safety Checklist • Procedure Checklist • Teacher Observation • Teacher Checklist • ASE Task Sheets	**Career Ready Practices** CRP 1,2,4,7,8,11,12 **Cluster Standards** TD 2,5 **Pathway Standards** TD-MTN 1	**ELA** 9-10R 1,2,4,5 9-10W 2,4,5,6,7 9-10SL 1,2,4,5,6 9-10L 1,2,3,6 **Literacy** RST 1,2,4,7,8 WHST 2,4,5,6,7 **Math** 7.EE.3 8.EE.7b
Weeks 39-40 **Review and Preparation for Certification and Final Examination**	• What were the main learning goals for this past year in automotive technology?	• Review knowledge and skills from the year in preparation for ASE Certification and Final Examination. • Complete the written and performance assessments demonstrating a thorough knowledge of automotive technology.	**Written** • Review Assignments on Technical Vocabulary and Industry Acronyms • Quizzes • Self-Assessment • ASE Certification Exams **Performance** • Safety Checklist • Procedure Checklist • Teacher Observation • Teacher Checklist • ASE Certification Exams	**Career Ready Practices** CRP 1,2,4,6,7,11 **Cluster Standards** TD 1,2,4,5,6 **Pathway Standards** TD-MTN 1,2	**ELA** 9-10R 1,2,4,5 9-10W 2,4,5 9-10SL 1,2,6 9-10L 1,2,3,6 **Literacy** RST 1,2,4,5,6,7 WHST 2,4,7 **Math**

Return to TOC

Syracuse City School District
Career and Technical Education Program
Course Syllabus
AUT 300: Automotive Technology 300

Program Overview

Automotive Technology is a four-year pathway designed to provide students with basic mechanical knowledge and skills. As an Automotive Service Excellence (ASE) program certified by the National Automotive Technicians Education Foundation (NATEF), students gain knowledge and skills through a combination of theoretical study and hands-on lab work, including brake systems, engine performance diagnosis, suspension and steering, electronic control systems, and on-board computerized engine control systems diagnosis on automobiles and light trucks. This program is the first step in preparing an individual for a career in the technical repair field. Over the course of the program, students will work on skills to help them obtain their New York State Inspection License post-graduation. They will also be provided with internship experiences to apply and improve their knowledge and skills. Students can earn a Career and Technical Endorsement on their diplomas by successfully passing a written and performance-based assessment. Students also have the opportunity to participate in the industry-standard ASE NATEF technical assessments for Maintenance and Light Repair (MLR), as well as optional NATEF assessments for additional certifications.

Course Description

This course is the third in of the four-year Automotive Technology pathway. Students will explore automotive electrical theory, diagnosis, and repair. Students will also complete the OSHA 10-hour course training leading to OSHA general certification. Classroom and shop activities simulate automotive service industry operations through the use of training aids and shop vehicles. The course also emphasizes job readiness through student participation in job shadowing opportunities. Students will be assessed through the NOCTI Written and Performance Assessments and will have an opportunity to take the tests for ASE certification in Automotive Electrical. Completion of the course will give students the basic knowledge and skills for the operation, maintenance, and repair of automotive electrical, and engine performance systems and prepare students for AUT 400: Automotive Technology 400.

Pre-Requisites

AUT 100: Automotive Technology 100
AUT 200: Automotive Technology 200

Course Objectives

Upon successful completion of this course, students will

1. Develop and improve skills working on automotive electrical diagnosis and repair.
2. Develop and improve skills working on automotive engine performance diagnosis and repair.
3. Use automotive measurements and calculations.
4. Use automotive service information.
5. Demonstrate the importance of career readiness.
6. Apply knowledge and skills in a work-based job shadow experience.
7. Prepare for ASE certification in Automotive Electrical and Automotive Engine Performance.
8. Continue to prepare for NYS Inspection certification.

Integrated Academics

1 CTE Integrated Math Credit

Equipment and Supplies

- **School will provide:** Required and up to date automotive shop equipment and supplies.
- **Student will provide:** Leather work boots or shoes (steel/composite toe preferred), and long work pants with no holes that cover the top of the shoe or boot.

Textbook

Duffy, James E. *Modern Automotive Technology, 8th Edition*. Tinley Park, IL: Goodheart-Willcox Co. Inc., 2014.

Grading

40% Daily Grade (punctuality, preparedness, willingness to learn, and behavior)
10% Quizzes
10% Tests
40% Quality of Work

Additional Course Policies

N/A

Course Calendar

Quarter	Units of Study
1	• Class Expectations • Careers and Certification • Safety Review • OSHA Training • Drive Train and Axle Technology

2	• Electrical
	  o Basic Electrical Systems
	  o Battery Service

3	• Electrical
	  o Starting System
	  o Charging System

4	• Electrical: Lighting, Instrument Cluster, Driver Information, And Body Electrical Systems • Job Shadow • Review and Preparation for Certification and Final Examination

NOTE: This curriculum is aligned to the 2017 NATEF MLR (Maintenance and Light Repair) Task List as indicated by the Priority Task designation:

P-1 – 95% of the items from the MLR Task List are taught in the curriculum.
P-2 – 80% of the items from the MLR Task List are taught in the curriculum.
P-3 – 50% of the items from the MLR Task List are taught in the curriculum.

Syracuse City School District
Career and Technical Education Program
Scope and Sequence
AUT 300: Automotive Technology 300

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
Weeks 1-2 **Class Expectations** **Careers and Certification**	• What are the expectations for the automotive technology classroom and shop? • What career paths within the automotive technology field? • What are the steps to finding an automotive technology-related job? • Why are successful job-seeking skills required in a competitive marketplace? • How does an automotive technician convey professionalism in the workplace?	• Explain the rules for general classroom and shop safety. • Explain and follow classroom procedures. • Research a specific career opportunity of interest including the required skills, education, and certifications. • Compare the requirements and process for obtaining ASE Certification with individual progress toward that goal. • Review the components of a successful job application process. • Update an online professional portfolio with a cover letter and resume. • Demonstrate professionalism and ethics in the workplace. • Complete an employability profile.	**Written** • Quiz on Class Expectations • Automotive Technology Career Research Project and Presentation with Rubric • Online Professional Portfolio • Employability Profile **Performance** • Teacher Observation • Class Expectations Checklist	**Career Ready Practices** CRP 1,2,4,7,8,10,11 **Cluster Standards** TD 1,6 **Pathway Standards** TD-MTN 1	**ELA** 11-12R 1,2,4,7 11-12W 2,4,5,6,7 11-12SL 1,2,4,5,6 11-12L 1,2,3,6 **Literacy** RST 1,2,4,7 WHST 2,4,5,6,7 **Math**
Week 3-4 **Safety Review** **OSHA Training**	• Why is safety important in the auto industry? • What do I need to know to keep myself and others safe in the shop? • What is personal protective equipment (PPE)? • Why should technicians follow OSHA guidelines when performing service on an automobile? • What is a SDS and what information does it contain? • What are Right-to-Know regulations?	• Review and follow general shop safety rules and procedures. • Utilize safe procedures for handling of tools and equipment. • Use proper placement of floor jacks and jack stands. • Use proper procedures for safe lift operation. • Utilize proper ventilation procedures for working within the lab/shop area. • Identify and follow marked safety areas. • Demonstrate knowledge of the procedures for using fire extinguishers and other fire safety equipment. • Explain the use of eye wash stations. • Identify posted evacuation routes. • Use required personal protective equipment (PPE) including safety glasses, ear protection, gloves, and shoes during shop activities. • Identify and wear appropriate clothing for shop activities. • Secure hair and jewelry for shop activities. • Demonstrate awareness of the safety aspects of high voltage circuits (e.g., high intensity discharge (HID) lamps, ignition systems and injection systems). • Explain the role of OSHA in shop safety. • Demonstrate use of safety data sheets (SDS). • Practice safe use, storage, and disposal of chemicals. • Summarize Right-to-Know regulations including	**Written** • Review Assignment on PPE, OSHA, Right-to-Know • Quizzes • Self-Assessment • ASE Task Sheets • OSHA 10-Hour Module Assessments **Performance** • Safety Checklist • Procedure Checklist • Teacher Observation • Teacher Checklist • ASE Task Sheets	**Career Ready Practices** CRP 1,2,3,4,5,8,11,12 **Cluster Standards** TD 4,5 **Pathway Standards** TD-MTN 1,2	**ELA** 11-12R 1,2,4,7 11-12W 2,4,5 11-12SL 1,2,6 11-12L 1,2,3,6 **Literacy** RST 1,2,4,7 WHST 2,4,6,7 **Math**

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
		hazardous materials and blood-borne pathogens. • Follow safety rules for hand and power tools. • Complete OSHA 10-Hour General Industry training.			
Weeks 5-10 **Drive Train and Axle Technology**	• How do automotive systems work together to keep a car functioning well? • What is the standard procedure for properly maintaining the drive train and axles? • Why do diagnostic procedures need to be followed? • What is the function of the differential in an automotive vehicle? • What condition is generally accepted as the first hint of differential troubles? • What type of axle housing is most often used? • Why are automotive axle housings vented?	• Identify drive train components and configuration. P-1 • Research vehicle service information, including fluid type, vehicle service history, service precautions, and technical service bulletins. P-1 • Drain and refill manual transmission/transaxle and final drive unit; use proper fluid type per manufacturer specification. P-1 • Check fluid condition; check for leaks. P-2 • Identify manual drive train and axle components and configuration. P-1 • Check and adjust clutch master cylinder fluid level; use proper fluid type per manufacturer specification. P-1 • Check for hydraulic system leaks. P-1 • Describe the operational characteristics of an electronically-controlled manual transmission/transaxle. P-2 • Identify the components of front- and rear-wheel-drive axles describe their operation. • Inspect, remove, and/or replace bearings, hubs, and seals. P-2 • Explain the difference between CV joints and universal joints. • Inspect, service, and/or replace shafts, yokes, boots, and universal/CV joints. P-2 • Inspect locking hubs. P-3 • Check for leaks at drive assembly and transfer case seals; check vents; check fluid level; use proper fluid type per manufacturer specification. P-2 • Explain the difference between the transfer, open, and limited slip differentials. • Clean and inspect differential case; check for leaks; inspect housing vent. P-1 • Check and adjust differential case fluid level; use proper fluid type per manufacturer specification. P-1 • Drain and refill differential housing. P-1 • Inspect and replace drive axle wheel studs. P-1 • Identify the differences, advantages, and disadvantages of four- and all-wheel drive. • Explain the purpose of a viscous clutch in all-wheel drive. • Name the major components of a conventional four-wheel drive system. • Inspect, adjust, and replace external manual valve shift linkage, transmission range sensor/switch, and/or park/neutral position switch. P-2 • Inspect replace and/or align power train mounts. P-2 • Describe the operational characteristics of a	**Written** • Assignment on Technical Vocabulary and Industry Acronyms • Quizzes • Self-Assessment • ASE Task Sheets **Performance** • Safety Checklist • Procedure Checklist • Teacher Observation • Teacher Checklist • ASE Task Sheets	**Career Ready Practices** CRP 1,2,4,8,11,12 **Cluster Standards** TD 2,5 **Pathway Standards** TD-MTN 1	**ELA** 11-12R 1,2,4,7 11-12W 2,4,5 11-12SL 1,2,6 11-12L 1,2,3,6 **Literacy** RST 1,2,4,7,8,9 WHST 2,4,6,7 **Math** 7.RP.3c 7.EE.3 6.G.1 7.RP.2c 7.G.4 8.EE.7b

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
		continuously variable transmission (CVT). P-3 • Describe the operational characteristics of a hybrid vehicle drive train. P-3			
Weeks 11-14 **Electrical:** **Basic Electrical Systems**	• What impact does the electrical system have on other systems of the automobile? • How has the use of electrical and battery components in automobiles evolved? • How are electrical systems diagnosed and repaired or replaced? • What are the implications for future battery usage (hybrids)? • Why is it important to understand the role of computer software in automotive electrical systems?	• Identify electrical/electronic system components and configuration. P-1 • Demonstrate knowledge of electrical/electronic series, parallel, and series-parallel circuits using principles of electricity (Ohm's Law). P-1 • Research vehicle service information, including vehicle service history, service precautions, and technical service bulletins. P-1 • Use wiring diagrams to trace electrical/electronic circuits. P-1 • Demonstrate proper use of a Digital Volt Ohm Meter (DVOM) or Digital Multimeter (DMM) when measuring source voltage, voltage drop (including grounds), current flow, and resistance. P-1 • Demonstrate knowledge of the causes and effects of shorts, grounds, opens, and resistance problems in electrical/electronic circuits. P-1 • Use a test light to check operation of electrical circuits. P-2 • Use fused jumper wires to check operation of electrical circuits. P-2 • Measure key-off battery drain (parasitic draw). P-1 • Inspect and test fusible links, circuit breakers, and fuses; determine necessary action. P-1 • Repair and/or replace connectors, terminal ends, and wiring of electrical/electronic systems (including solder repair). P-1	**Written** • Assignment on Technical Vocabulary and Industry Acronyms • PBL Project on Electrical Theory • Quizzes • Self-Assessment • ASE Task Sheets **Performance** • Safety Checklist • Procedure Checklist • Teacher Observation • Teacher Checklist • ASE Task Sheets	**Career Ready Practices** CRP 1,2,4,7,8,11,12 **Cluster Standards** TD 2,5 **Pathway Standards** TD-MTN 1	**ELA** 11-12R 1,2,4,7 11-12W 2,4,5,6,7 11-12SL 1,2,6 11-12L 1,2,3,6 **Literacy** RST 1,2,4,7,8,9 WHST 2,4,6,7 **Math** A-REI.2 A-CED.4 5.NF.1 5.NF.2
Weeks 15-19 **Electrical:** **Battery Service**	• What impact does the electrical system have on other systems of the automobile? • How has the use of electrical and battery components in automobiles evolved? • How are electrical systems diagnosed and repaired or replaced? • What are the implications for future battery usage (hybrids)? • Why is it important to understand the role of computer software in automotive electrical systems?	• Identify different types of batteries used in cars and trucks. • Perform battery state-of-charge test; determine necessary action. P-1 • Confirm proper battery capacity for vehicle application; perform battery capacity and load test; determine necessary action. P-1 • Maintain or restore electronic memory functions. P-1 • Inspect and clean battery; fill battery cells; check battery cables, connectors, clamps, and hold-downs. P-1 • Perform slow/fast battery charge according to manufacturer's recommendations. P-1 • Jump-start vehicle using jumper cables and a booster battery or an auxiliary power supply. P-1 • Identify safety precautions for high-voltage systems on electric, hybrid electric, and diesel vehicles. P-2 • Identify electrical/electronic modules, security systems, radios, and other accessories that require reinitialization or code entry after reconnecting vehicle battery. P-1	**Written** • Assignment on Technical Vocabulary and Industry Acronyms • PBL Project on Electrical Theory • Quizzes • Self-Assessment • ASE Task Sheets **Performance** • Safety Checklist • Procedure Checklist • Teacher Observation • Teacher Checklist • ASE Task Sheets	**Career Ready Practices** CRP 1,2,4,7,8,11,12 **Cluster Standards** TD 2,5 **Pathway Standards** TD-MTN 1	**ELA** 11-12R 1,2,4,7 11-12W 2,4,5,6,7 11-12SL 1,2,6 11-12L 1,2,3,6 **Literacy** RST 1,2,4,7,8,9 WHST 2,4,6,7 **Math** A-REI.2 A-CED.4 5.NF.1 5.NF.2

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
		• Identify hybrid vehicle auxiliary (12v) battery service, repair, and test procedures. P-2			
Weeks 20-24 **Electrical: Starting System**	• What impact does the electrical system have on other systems of the automobile? • How has the use of electrical and battery components in automobiles evolved? • How are electrical systems diagnosed and repaired or replaced? • What are the implications for future battery usage (hybrids)? • Why is it important to understand the role of computer software in automotive electrical systems?	• Perform starter current draw test; determine necessary action. P-1 • Perform starter circuit voltage drop tests; determine necessary action. P-1 • Inspect and test starter relays and solenoids; determine necessary action. P-2 • Remove and install starter in a vehicle. P-1 • Inspect and test switches, connectors, and wires of starter control circuits; determine necessary action. P-2 • Demonstrate knowledge of an automatic idle-stop/start-stop system. P-3	**Written** • Assignment on Technical Vocabulary and Industry Acronyms • PBL Project on Electrical Theory • Quizzes • Self-Assessment • ASE Task Sheets **Performance** • Safety Checklist • Procedure Checklist • Teacher Observation • Teacher Checklist • ASE Task Sheets	**Career Ready Practices** CRP 1,2,4,7,8,11,12 **Cluster Standards** TD 2,5 **Pathway Standards** TD-MTN 1	**ELA** 11-12R 1,2,4,7 11-12W 2,4,5,6,7 11-12SL 1,2,6 11-12L 1,2,3,6 **Literacy** RST 1,2,4,7,8,9 WHST 2,4,6,7 **Math** A-REI.2 A-CED.4 5.NF.1 5.NF.2
Weeks 25-30 **Electrical: Charging System**	• What impact does the electrical system have on other systems of the automobile? • How has the use of electrical and battery components in automobiles evolved? • How are electrical systems diagnosed and repaired or replaced? • What are the implications for future battery usage (hybrids)? • Why is it important to understand the role of computer software in automotive electrical systems?	• Explain the purpose and identify the major components of the charging system. • Explain the purposes of the major parts of an AC generator. • Explain half- and full-wave rectification and how they relate to AC generator operation. • Identify the different types of AC voltage regulators. • Perform charging system output test using electrical test equipment; determine necessary action. P-1 • Inspect, adjust, or replace generator (alternator) drive belts; check pulleys and tensioners for wear; check pulley and belt alignment. P-1 • Remove, inspect, and/or replace generator (alternator). P-2 • Perform charging circuit voltage drop tests; determine necessary action. P-2	**Written** • Assignment on Technical Vocabulary and Industry Acronyms • PBL Project on Electrical Theory • Quizzes • Self-Assessment • ASE Task Sheets **Performance** • Safety Checklist • Procedure Checklist • Teacher Observation • Teacher Checklist • ASE Task Sheets	**Career Ready Practices** CRP 1,2,4,7,8,11,12 **Cluster Standards** TD 2,5 **Pathway Standards** TD-MTN 1	**ELA** 11-12R 1,2,4,7 11-12W 2,4,5,6,7 11-12SL 1,2,6 11-12L 1,2,3,6 **Literacy** RST 1,2,4,7,8,9 WHST 2,4,6,7 **Math** A-REI.2 A-CED.4 5.NF.1 5-NF.2 F-TF.5
Weeks 31-33 **Electrical: Lighting, Instrument Cluster, Driver Information, And Body Electrical Systems**	• What impact does the electrical system have on other systems of the automobile? • How has the use of electrical and battery components in automobiles evolved? • How are electrical systems diagnosed and repaired or replaced?	• Inspect interior and exterior lamps and sockets including headlights and auxiliary lights (fog lights/driving lights); replace as needed. P-1 • Aim headlights. P-2 • Identify system voltage and safety precautions associated with high-intensity discharge headlights. P-2 • Disable and enable supplemental restraint system (SRS); verify indicator lamp operation. P-1 • Remove and reinstall door panel. P-1 • Describe the operation of keyless entry/remote-start systems. P-3	**Written** • Assignment on Technical Vocabulary and Industry Acronyms • PBL Project on Electrical Theory • Quizzes • Self-Assessment • ASE Task Sheets **Performance**	**Career Ready Practices** CRP 1,2,4,7,8,11,12 **Cluster Standards** TD 2,5 **Pathway Standards** TD-MTN 1	**ELA** 11-12R 1,2,4,7 11-12W 2,4,5,6,7 11-12SL 1,2,6 11-12L 1,2,3,6 **Literacy** RST 1,2,4,7,8,9 WHST 2,4,6,7 **Math** A-REI.2 A-CED.4

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
	• What are the implications for future battery usage (hybrids)? • Why is it important to understand the role of computer software in automotive electrical systems?	• Verify operation of instrument panel gauges and warning/indicator lights; reset maintenance indicators. P-1 • Verify windshield wiper and washer operation; replace wiper blades. P-1	• Safety Checklist • Procedure Checklist • Teacher Observation • Teacher Checklist • ASE Task Sheets		5.NF.1 5.NF.2
Weeks 35-37 **Job Shadow**	• How can I prepare myself to follow my career choice? • Why are successful job-seeking skills required in a competitive marketplace? • How does an automotive technician convey professionalism in the workplace? • Why are job shadow experiences necessary? • How does a job shadow experience contribute to a professional portfolio? • What were your areas of improvement and challenges during the job shadow experience?	• Apply job search techniques to seek out, evaluate and obtain job shadow opportunities. • Communicate with industry/potential employers through the job shadow experience. • Apply knowledge and skills from the classroom to workplace situations. • Explain how various automotive professionals work together for the common goal of customer service. • Explain the importance of professionalism and ethics in the workplace. • Comply with workplace policies and regulations. • Communicate effectively both verbally and in writing with coworkers and customers. • Explain the importance of being prompt, being able to take directions and being motivated to accomplish assigned tasks. • Analyze and resolve problems that arise in completing assigned tasks. • Update online professional portfolio and employability profile.	**Written** • Self-Assessment • Reflection Summary: Job Shadow Experience • Online Professional Portfolio • Employability Profile **Performance** • Job Shadow Checklist • Teacher Checklist	**Career Ready Practices** CRP 1,2,4,8,10,11,12 **Cluster Standards** TD 6 **Pathway Standards** TD-MTN 1	**ELA** 11-12R 1,2,4,7 11-12W 2,4,5 11-12SL 1,2,6 11-12L 1,2,3,6 **Literacy** RST 1,2,4,7,8,9 WHST 2,4,6,7 **Math**
Weeks 38-40 **Review and Preparation for Certification and Final Examination**	• What were the main learning goals for this past year in automotive technology?	• Review knowledge and skills from the program in preparation for ASE Certification, Final Examination and NOCTI Assessment. • Complete the written and performance assessments demonstrating a thorough knowledge of automotive technology.	**Written** • Self-Assessment • ASE Certification Exams • NOCTI Written Assessment **Performance** • Safety Checklist • Procedure Checklist • Teacher Observation • Teacher Checklist • ASE Certification Exams • NOCTI Performance Assessment	**Career Ready Practices** CRP 1,2,4,8,11 **Cluster Standards** TD 1,2,4,5,6 **Pathway Standards** TD-MTN 1,2	**ELA** 11-12R 1,2,4,7 11-12W 2,4,5 11-12SL 1,2,6 11-12L 1,2,3,6 **Literacy** RST 1,2,4,5,6,7 WHST 2,4,7 **Math**

Return to TOC

Syracuse City School District
Career and Technical Education Program
Course Syllabus
AUT 400: Automotive Technology 400

Program Overview

Automotive Technology is a four-year pathway designed to provide students with basic mechanical knowledge and skills. As an Automotive Service Excellence (ASE) program certified by the National Automotive Technicians Education Foundation (NATEF), students gain knowledge and skills through a combination of theoretical study and hands-on lab work, including brake systems, engine performance diagnosis, suspension and steering, electronic control systems, and on-board computerized engine control systems diagnosis on automobiles and light trucks. This program is the first step in preparing an individual for a career in the technical repair field. Over the course of the program, students will work on skills to help them obtain their New York State Inspection License post-graduation. They will also be provided with internship experiences to apply and improve their knowledge and skills. Students can earn a Career and Technical Endorsement on their diplomas by successfully passing a written and performance-based assessment. Students also have the opportunity to participate in the industry-standard ASE NATEF technical assessments for Maintenance and Light Repair (MLR), as well as optional NATEF assessments for additional certifications.

Course Description

This course is the last in the four-year Automotive Technology pathway. Students will explore Automotive Engine Performance theory, diagnosis, and repair and participate in job internships and career preparation. Classroom and shop activities simulate automotive service industry operations through the use of training aids and shop vehicles. Students will be assessed using the NOCTI Written and Performance Assessments and will have the opportunity to test for NYS Inspection licensure and ASE certification in Automotive Engine Performance. Completion of the course will prepare students for continuing education and careers in the field of Automotive Technology.

Pre-Requisites

AUT 100: Automotive Technology 100
AUT 200: Automotive Technology 200
AUT 300: Automotive Technology 300

Course Objectives

Upon successful completion of this course, students will

1. Use automotive measurements and calculations.
2. Use automotive service information
3. Develop and improve skills working on automotive engine performance, diagnosis, and repair.
4. Apply knowledge and skills in a work-based job internship.
5. Prepare for ASE certification in Automotive Engine Performance.
6. Prepare for NYS Inspection certification.

Integrated Academics

1 CTE Integrated English Credit

Equipment and Supplies

- **School will provide:** Required and up to date automotive shop equipment and supplies.
- **Student will provide:** Leather work boots or shoes (steel/composite toe preferred), and long work pants with no holes that cover the top of the shoe or boot

Textbook

Duffy, James E. *Modern Automotive Technology, 8th Edition*. Tinley Park, IL: Goodheart-Willcox Co. Inc., 2014.

Grading

40% Daily Grade (punctuality, preparedness, willingness to learn, and behavior)
10% Quizzes
10% Tests
40% Quality of Work

Additional Course Policies

N/A

Course Calendar

Quarter	Units of Study
1	• Class Expectations • Careers and Certification • Safety Review • OSHA Training • Engine Performance
2	• Engine Performance (Continued)
3	• Engine Performance (Continued) • Engine Performance: Heating and Air Conditioning
4	• Internships • Review of All Automotive Systems: Maintenance and Repair • Certification and Final Examinations

NOTE: This curriculum is aligned to the 2017 NATEF MLR (Maintenance and Light Repair) Task List as indicated by the Priority Task designation:

P-1 – 95% of the items from the MLR Task List are taught in the curriculum.
P-2 – 80% of the items from the MLR Task List are taught in the curriculum.
P-3 – 50% of the items from the MLR Task List are taught in the curriculum.

Syracuse City School District
Career and Technical Education Program
Scope and Sequence
AUT 400: Automotive Technology 400

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
Weeks 1-2 **Class Expectations** **Careers and Certification**	• What are the expectations for the automotive technology classroom and shop? • What career paths within the automotive technology field? • What are the steps to finding an automotive technology-related job? • Why are successful job-seeking skills required in a competitive marketplace? • How does an automotive technician convey professionalism in the workplace?	• Explain the rules for general classroom and shop safety. • Explain and follow classroom procedures. • Compare the requirements and process for obtaining ASE Certification with individual progress toward that goal. • Review the components of a successful job application process. • Prepare a professional cover letter, and resume in preparation for job applications or post-secondary training. • Update an online professional portfolio with a cover letter and resume. • Demonstrate professionalism and ethics in the workplace. • Complete an employability profile. • Describe advantages and disadvantages of small business ownership and employment. • Identify and address the needs of all customers, providing helpful, courteous, and knowledgeable service and advice as needed.	**Written** • Quiz on Class Expectations • Automotive Technology Career Research Project and Presentation with Rubric • Online Professional Portfolio • Employability Profile **Performance** • Teacher Observation • Class Expectations Checklist	**Career Ready Practices** CRP 1,2,4,7,8,10,11 **Cluster Standards** TD 1,6 **Pathway Standards** TD-MTN 1	**ELA** 11-12R 11-12W 11-12SL 11-12L **Literacy** RST 1,2,4,7 WHST 2,4,5,6,7 **Math**
Week 3-4 **Safety Review** **OSHA Training**	• Why is safety important in the auto industry? • What do I need to know to keep myself and others safe in the shop? • What is personal protective equipment (PPE)? • Why should technicians follow OSHA guidelines when performing service on an automobile? • What is an SDS and what information does it contain? • What are Right-to-Know regulations?	• Review and follow general shop safety rules and procedures. • Utilize safe procedures for handling of tools and equipment. • Use proper placement of floor jacks and jack stands. • Use proper procedures for safe lift operation. • Utilize proper ventilation procedures for working within the lab/shop area. • Identify and follow marked safety areas. • Demonstrate knowledge of the procedures for using fire extinguishers and other fire safety equipment. • Explain the use of eye wash stations. • Identify posted evacuation routes. • Use required personal protective equipment (PPE) including safety glasses, ear protection, gloves, and shoes during shop activities. • Identify and wear appropriate clothing for shop activities. • Secure hair and jewelry for shop activities. • Demonstrate awareness of the safety aspects of high voltage circuits (e.g., high intensity discharge	**Written** • Review Assignment on PPE, OSHA, Right-to-Know • Quizzes • Self-Assessment • ASE Task Sheets • OSHA 10-Hour Module Assessments **Performance** • Safety Checklist • Procedure Checklist • Teacher Observation • Teacher Checklist • ASE Task Sheets	**Career Ready Practices** CRP 1,2,3,4,5,8,11,12 **Cluster Standards** TD 4,5 **Pathway Standards** TD-MTN 1,2	**ELA** 11-12R 1,2,4,7 11-12W 2,4,5 11-12SL 1,2,6 11-12L 1,2,3,6 **Literacy** RST 1,2,4,7 WHST 2,4,6 **Math**

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
		(HID) lamps, ignition systems and injection systems). • Explain the role of OSHA in shop safety. • Demonstrate use of safety data sheets (SDS). • Practice safe use, storage, and disposal of chemicals. • Summarize Right-to-Know regulations including hazardous materials and blood-borne pathogens. • Follow safety rules for hand and power tools. • Complete OSHA 10-Hour General Industry training.			
Weeks 5-25 **Engine Performance**	• Why is it important to have an engine operating at peak performance? • How do I use technical manuals to understand vehicle systems? • How are engine components diagnosed and repaired or replaced? • Why are the lubrication and cooling systems so important? • Why is proper air/fuel important to a vehicle's performance? • What is being done to improve emissions for our future?	• Describe the various ways in which engines can be classified. • Explain the advantages and disadvantages of inline and V-type engine designs. • Explain what takes place during each stroke of the four-stroke cycle. • Define important engine measurements and performance characteristics, including bore and stroke, displacement, compression ratio, engine efficiency, torque, and horsepower. • Explain the basics of diesel, stratified, and Miller-cycle engine operation. • Explain how to evaluate the condition of an engine. • List and describe nine abnormal engine noises. • Describe the purpose of the major engine performance controls. • Describe open/closed loop, the Malfunction Indicator Lamp (MIL) and On-Board Diagnostics (OBD). • Describe the use of monitored systems in OBD to diagnose problems. • Describe warm up cycle and trip counter in OBD. • Explain engine misfire and determine the causes. • Describe Adaptive Strategy, Adaptive Memory, and OBD monitors. • Diagnose OBD faults. • Identify the parts of an ignition system. • Perform a visual inspection of ignition system components, primary wiring, and secondary wiring to locate obvious trouble areas. • Test the components of the primary and secondary ignition circuits using test equipment such as a voltmeter, ohmmeter, and test light. • Determine cause of ignition system failure. • Perform a no-start diagnosis and determine the cause of the condition. • Diagnose engine misfiring on electronic ignition (EI) equipped engines. • Explain the difference in point of injection in throttle body or port injection systems. • Describe the difference between a sequential fuel	**Written** • Assignment on Technical Vocabulary and Industry Acronyms • Quizzes • Self-Assessment • ASE Task Sheets **Performance** • Safety Checklist • Procedure Checklist • Teacher Observation • Teacher Checklist • ASE Task Sheets	**Career Ready Practices** CRP 1,2,4,8,11,12 **Cluster Standards** TD 2,5 **Pathway Standards** TD-MTN 1	**ELA** 11-12R 1,2,4,7 11-12W 2,4,5 11-12SL 1,2,6 11-12L 1,2,3,6 **Literacy** RST 1,2,4,7,8,9 WHST 2,4,6,7 **Math** 7.RP.2 A-REI.2 A-CED.4 5.NF.1 5.NF.2 N-Q.1 N-Q.3

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
		injection (SFI) system and a multiport fuel injection (MFI) system. • Explain the design and function of major electronic fuel injection (EFI) components. • Describe the inputs used by the computer to control the idle air control and idle air control by-pass air motors. • Explain how the computer supplies the correct air-fuel ratio. • Explain why the manifold vacuum is connected to the pressure regulator in an MFI system. • Describe the operation of the pressure regulator in a return-less EFI system. • Describe the operation of direct gasoline injection systems and the operation of the injection systems used in light- and medium-duty diesel engines. • Test and diagnose switch-type input sensors, variable resistance-type input sensors, and generating-type input sensors. • Test and diagnose output devices (actuators). • Perform active tests of actuators using scan tool. • Diagnose emission related Diagnostic Trouble Codes (DTCs). • Describe five types of exhaust gasses. • Describe Positive Crankcase Ventilation (PCV) operation. • Explain Evaporative Emission Control System (EVAP) diagnosis. • Research vehicle service information, including fluid type, vehicle service history, service precautions, and technical service bulletins. P-1 • Perform engine absolute manifold pressure tests (vacuum/boost); document results. P-2 • Perform cylinder power balance test; document results. P-2 • Perform cylinder cranking and running compression tests; document results. P-2 • Perform cylinder leakage test; document results. P-2 • Verify engine operating temperature. P-1 • Remove and replace spark plugs; inspect secondary ignition components for wear and damage. P-1 • Retrieve and record diagnostic trouble codes (DTC), OBD monitor status, and freeze frame data; clear codes when applicable. P-1 • Describe the use of the OBD monitors for repair verification. P-1 • Replace fuel filter(s) where applicable. P-2 • Inspect, service, or replace air filters, filter housings, and intake duct work. P-1			

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
		• Inspect integrity of the exhaust manifold, exhaust pipes, muffler(s), catalytic converter(s), resonator(s), tail pipe(s), and heat shields; determine necessary action. P-1 • Inspect condition of exhaust system hangers, brackets, clamps, and heat shields; determine necessary action. P-1 • Check and refill diesel exhaust fluid (DEF). P-2 • Inspect, test, and service positive crankcase ventilation (PCV) filter/breather, valve, tubes, orifices, and hoses; perform necessary action. P-2			
Weeks 26-30 **Engine Performance: Heating and Air Conditioning**	• Why is it important to have an engine operating at peak performance? • How do I use technical manuals to understand vehicle systems? • How are engine components diagnosed and repaired or replaced? • Why are the lubrication and cooling systems so important? • Why is proper air/fuel important to a vehicle's performance? • What is being done to improve emissions for our future?	• Research vehicle service information, including refrigerant/oil type, vehicle service history, service precautions, and technical service bulletins. P-1 • Identify heating, ventilation, and air conditioning (HVAC) components and configuration. P-1 • Inspect and replace A/C compressor drive belts, pulleys, and tensioners; visually inspect A/C components for signs of leaks; determine necessary action. P-1 • Identify hybrid vehicle A/C system electrical circuits and the service/safety precautions. P-2 • Inspect A/C condenser for airflow restrictions; determine necessary action. P-1 • Inspect engine cooling and heater systems hoses and pipes; determine necessary action. P-1 • Inspect A/C-heater ducts, doors, hoses, cabin filters, and outlets; determine necessary action. P-1 • Identify the source of A/C system odors. P-2	**Written** • Assignment on Technical Vocabulary and Industry Acronyms • Quizzes • Self-Assessment • ASE Task Sheets **Performance** • Safety Checklist • Procedure Checklist • Teacher Observation • Teacher Checklist • ASE Task Sheets	**Career Ready Practices** CRP 1,2,4,8,11,12 **Cluster Standards** TD 2,5 **Pathway Standards** TD-MTN 1	**ELA** 11-12R 1,2,4,7 11-12W 2,4,5 11-12SL 1,2,6 11-12L 1,2,3,6 **Literacy** RST 1,2,4,7,8,9 WHST 2,4,6,7 **Math** 7.EE.3
Weeks 31-38 **Internships** **Review of All Automotive Systems: Maintenance and Repair**	• How can I prepare myself to follow my career choice? • Why are successful job-seeking skills required in a competitive marketplace? • How does an automotive technician convey professionalism in the workplace? • Why are internships necessary? • How does an internship experience contribute to a professional portfolio? • What were your areas of improvement and challenges during the internship experience? • What were the main learning goals for this past	• Apply job search techniques to seek out, evaluate and obtain internship opportunities. • Communicate with industry/potential employers through the internship experience. • Apply knowledge and skills from the classroom to workplace situations. • Explain how various automotive professionals work together for the common goal of customer service. • Explain the importance of professionalism and ethics in the workplace. • Comply with workplace policies and regulations. • Communicate effectively both verbally and in writing with coworkers and customers. • Explain the importance of being prompt, being able to take directions and being motivated to accomplish assigned tasks. • Analyze and resolve problems that arise in completing assigned tasks. • Update online professional portfolio and employability profile.	**Written** • Self-Assessment • Reflection Summary: Internship Experience • Online Professional Portfolio • Employability Profile • ASE Task Sheets **Performance** • Internship Checklist • Safety Checklist • Procedure Checklist • Teacher Observation • Teacher Checklist • ASE Task Sheets	**Career Ready Practices** CRP 1,2,4,8,10,11,12 **Cluster Standards** TD 6 **Pathway Standards** TD-MTN 1	**ELA** 11-12R 1,2,4,7 11-12W 2,4,5 11-12SL 1,2,6 11-12L 1,2,3,6 **Literacy** RST 1,2,4,7,8,9 WHST 2,4,6,7 **Math**

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CCTC Standards	NYS Standards
	year in automotive technology	• Review knowledge and skills from the program in preparation for ASE Certification, Final Examination and NOCTI Assessment.			
Weeks 38-40 **Certification and Final Examinations**	• What were the main learning goals for this past year in automotive technology?	• Complete the written and performance assessments demonstrating a thorough knowledge of automotive technology.	**Written** • Self-Assessment • ASE Certification Exams • NOCTI Written Assessment **Performance** • Safety Checklist • Procedure Checklist • Teacher Observation • Teacher Checklist • ASE Certification Exams • NOCTI Performance Assessment	**Career Ready Practices** CRP 1,2,4,8,11 **Cluster Standards** TD 1,2,4,5,6 **Pathway Standards** TD-MTN 1,2	**ELA** 11-12R 1,2,4,7 11-12W 2,4,5 11-12SL 1,2,6 11-12L 1,2,3,6 **Literacy** RST 1,2,4,5,6,7 WHST 2,4,7 **Math**

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B. Teacher Certification

> *The self-study team reviews the teacher certification and training of the school or BOCES' instructional, paraprofessional, and support staff who deliver services within the CTE program seeking approval. New York State teacher certification review should include both CTE teachers and teachers of academic content within the proposed program.*

Process

- Reviewers confirm that all CTE teachers hold appropriate New York State teacher certification for the program in which they will teach.
- Reviewers confirm that all teachers of academic content hold appropriate New York State teacher certification for the program in which they will teach.
- Reviewers confirm the appropriate NCLB highly-qualified status for the CTE teachers in programs offering academic credit.
- Reviewers confirm that staff delivering instruction in programs where certification, licensure, or registration by an external entity have acquired the necessary credentials.
- Reviewers confirm that professional development opportunities exist within the school district or BOCES for instructional, paraprofessional, and support staff to acquire and improve skills and knowledge related to instructional enhancement of the CTE program.

Documentation

Recommendations from the review of teacher certification should be included in the self-study report and reviewed by the external committee. A list of all teachers for the program and the New York State teacher certification(s) held by each must be attached to the Application for Career and Technical Education Program Approval.

Resources

New York State Office of Teaching Initiatives
http://www.highered.nysed.gov/tcert/certificate/certprocess.htm

Source: http://www.p12.nysed.gov/cte/ctepolicy/guide.html

Search Results

Select	First Name	Last Name	MI	City	State	Registration Status
◉	MICHAEL	EDMUNDS	T	CICERO	NY	N/A

View Detail

Certificate Information for New York State Teaching Certificate Holder

Certificate Title	Issue / Effective Date	Expiration Date	Status
Vehicle Mechanical Repair (Including Heavy Equipment Repair) 7-12 Transitional A Certificate	03/01/2019	08/31/2022	Issued

Search Results

Select	First Name	Last Name	MI	City	State	Registration Status
◉	JULIA	HALLQUIST	K	SYRACUSE	NY	Registered

View Detail

Certificate Information for New York State Teaching Certificate Holder

Certificate Title	Issue / Effective Date	Expiration Date	Status
Mathematics 7-12 Permanent Certificate	09/01/2005		Issued
Mathematics 7-12 Provisional Certificate	09/01/2002	08/31/2007	Expired
School Building Leader Initial Certificate	10/09/2015	01/31/2021	Issued
Physics 7-12 Professional Certificate	09/01/2006		Issued
School District Leader Professional Certificate	11/07/2015		Issued
School Building Leader Internship Certificate	09/16/2014	08/28/2015	Expired
School District Leader Internship Certificate	09/16/2014	08/28/2015	Expired

Search Results

Select	First Name	Last Name	MI	City	State	Registration Status
◉	ADAM	LUTWIN	S	SYRACUSE	NY	Registered

View Detail

Certificate Information for New York State Teaching Certificate Holder

Certificate Title	Issue / Effective Date	Expiration Date	Status
English 7-12 Permanent Certificate	09/01/2007		Issued
English 7-12 Provisional Certificate	09/01/2002	08/31/2009	Expired

C. Technical Assessments Based on Industry Standards

> *The self-study team reviews the selection of a technical assessment for the program seeking approval. The selected technical assessment must be nationally-recognized and based on industry standards. It must be available to students enrolled in the approved program and must consist of three parts: written, student demonstration, and student project. Successful completion of the technical assessment is not a requirement for high school graduation, but is required for a student to earn a technical endorsement on the high school diploma*
>
> *The New York State Education Department does not approve, endorse, or certify any technical assessment.*

Process

- The school district or BOCES selects an appropriate industry standard technical assessment to measure student proficiency in the technical field for the program. The school district or BOCES may select a New York State licensing examination as the technical assessment.
- The school district or BOCES determines the scheduling and administration of technical assessments. It is not required that the technical assessment be administered at the conclusion of the program. Parts may be administered throughout a student's learning experience.
- The school district or BOCES determines the number of times a student may take a particular technical assessment.
- The school district or BOCES must comply with existing laws and regulations related to administration of technical assessments to students with disabling conditions and provide appropriate testing modifications. Restrictions on student eligibility for testing are the responsibility of the test producer.
- In the absence of an appropriate nationally-recognized industry standard based assessment, a consortium of local, regional, state, business and industry representatives may be formed to produce such an instrument.
    - Technical assessments must meet generally recognized psychometric criteria. Therefore, the consortium approach may be expensive because of the many steps required to insure assessment validity, reliability, and security.
    - An existing CTE advisory committee or craft committee is not a technical assessment consortium. The school district or BOCES must ensure that the assessment consortium adequately represents current business and industry standards for the specific career area for the program.
- Where an appropriate technical assessment exists, but consists of only one or two parts, a consortium must be formed to develop the missing part(s).
- The school district or BOCES must develop a system to collect student-level and program-level data on performance on the technical assessment.

Documentation

Recommendations on the technical assessment selection should be included in the self-study report and reviewed by the external committee.

Resources

New York State graduation requirements: http://www.emsc.nysed.gov/part100/pages/1005.html

Information on the Technical Endorsement: http://www.emsc.nysed.gov/cte/ctepolicy/endorsement.html

Source: http://www.p12.nysed.gov/cte/ctepolicy/guide.html

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NOCTI CTE®

Measuring What Matters in

Job Ready Assessment Blueprint

Automotive Technician-Core

Test Code: 4309 / Version: 01

General Assessment Information

Blueprint Contents

Test Type: The Automotive Technician-Core industry-based credential is included in NOCTI's Job Ready assessment battery. Job Ready assessments measure technical skills at the occupational level and include items which gauge factual and theoretical knowledge. Job Ready assessments typically offer both a written and performance component and can be used at the secondary and post-secondary levels. Job Ready assessments can be delivered in an online or paper/pencil format.

Revision Team: The assessment content is based on input from secondary, post-secondary, and business/industry representatives from the states of Illinois, Kentucky, Maine, New Jersey, North Carolina, and Pennsylvania.

CIP Code

47.0604- Automobile/ Automotive Mechanics Technology/Technician

Learning that works for America CTE™

Career Cluster 16- Transportation, Distribution, and Logistics

o*net™ in*it

49-3023.01- Automotive Master Mechanics

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General Assessment Information (continued)

The Association for Career and Technical Education (ACTE), the leading professional organization for career and technical educators, commends all students who participate in career and technical education programs and choose to validate their educational attainment through rigorous technical assessments. In taking this assessment you demonstrate to your school, your parents and guardians, your future employers and yourself that you understand the concepts and knowledge needed to succeed in the workplace. Good Luck!

Today's Class delivers web-based interactive educational programs and has determined that there is significant alignment between their Automotive curriculum and NOCTI's Automotive Technician-Core technical skill assessment. The alignment suggests that use of the Today's Class program curriculum may enhance student scores on NOCTI's assessment.

The Automotive Lift Institute (ALI) applauds students who successfully complete a Career and Technical Education program and validate their knowledge and skills with credentials such as ALI's lift safety certificate course and NOCTI industry-based assessments. As the world's most-widely recognized source for promoting the safe design, construction, installation, inspection, and use of automotive lift products, ALI believes in the importance of third-party, industry-driven credentials and their importance as a foundation for defining a technician's skill level throughout their career.

NATIONAL COLLEGE CREDIT RECOMMENDATION SERVICE
University of the State of New York - Regents Research Fund

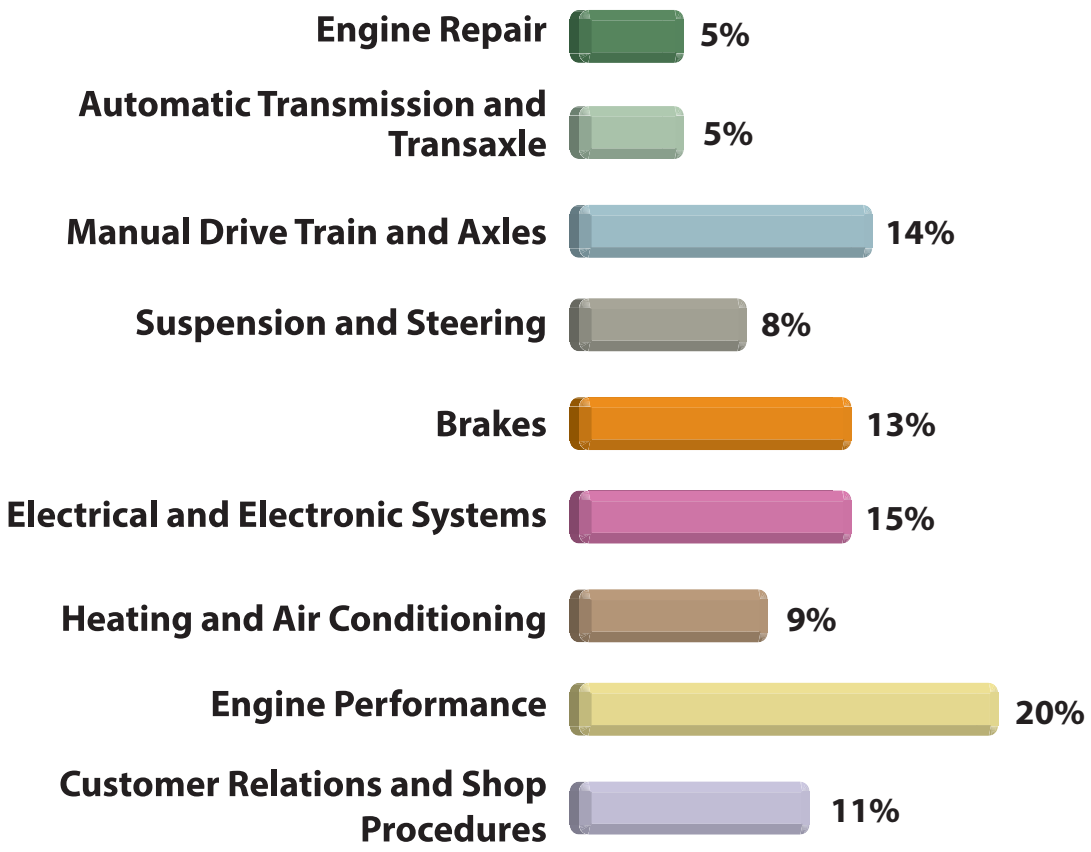
In the lower division baccalaureate/associate degree category, 1 semester hour in Automotive Trades or Automotive Technician

Written Assessment

NOCTI written assessments consist of questions to measure an individual's factual theoretical knowledge.

Administration Time: 3 hours
Number of Questions: 172
Number of Sessions: This assessment may be administered in one, two, or three sessions.

Areas Covered



Specific Standards and Competencies Included in this Assessment

Engine Repair

- Inspect and service general engine issues, including adjusting valve trains
- Inspect, test, and service lubrication and cooling systems

Automatic Transmission and Transaxle

- Check fluids on transmission/transaxle
- Perform in-vehicle transmission/transaxle inspections and service
- Describe and identify operational characteristics of transmission/transaxle for CVT and hybrids

Manual Drive Train and Axles

- Check fluid condition and service transmissions and transaxles
- Perform clutch master cylinder inspections and service
- Identify, describe, inspect, and service manual transmission and transaxle issues
- Inspect and service drive shaft, half shafts, universal, and constant-velocity (CV) joints
- Inspect and service differential case assembly
- Inspect and service four wheel drive and all wheel drive systems

(Continued on the following page)

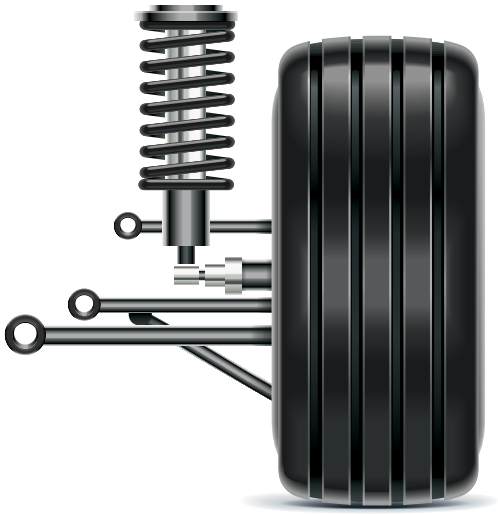
Specific Standards and Competencies (continued)

Suspension and Steering

- Perform related suspension and steering systems inspection and service
- Perform vehicle pre-alignment inspection and ride-height
- Inspect and service wheels and tires

Brakes

- Inspect and service hydraulic system
- Inspect and service drum brakes
- Inspect and service disc brakes
- Inspect and service power-assist units
- Inspect and service miscellaneous systems (e.g., wheel bearings, parking brakes, electrical)
- Identify and describe electronic brakes, traction, and stability control systems



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Specific Standards and Competencies (continued)

Electrical and Electronic Systems

- Inspect and service general electrical/electronic systems
- Inspect and service batteries
- Inspect and service starting systems
- Inspect and service charging systems
- Inspect and service lighting systems
- Inspect and service accessories

Heating and Air Conditioning

- Inspect and service refrigeration system components
- Inspect and service heating, ventilation, and engine cooling systems
- Inspect and service operating systems and related controls

Engine Performance

- Inspect and service general engine performance
- Identify and describe computerized controls
- Inspect and service fuel, air induction, and exhaust systems
- Inspect and service emissions control systems

Customer Relations and Shop Procedures

- Interpret and estimate repair and work orders
- Utilize computerized and written vehicle service information
- Exhibit understanding of appropriate customer interactions
- Exhibit understanding of automotive, environmental, and hazardous materials
- Display understanding of safe work environment and shop procedures
- Identify proper tool handling and maintenance procedures

Sample Questions

Coolant in the engine oil would most likely indicate a

A. leaking water pump
B. cracked engine block
C. leaking head gasket
D. leaking oil cooler

When installing a new transmission rear seal,

A. the inner and outer lips should be installed dry
B. the inner lip should be lubed with the fluid it is sealing
C. the inner lip should be coated with RTV
D. lapping compound should be used for a quicker seal

A typical rear axle lube would be

A. 10W-30
B. Dexron III®
C. GL5 85W-90
D. Mercon®

Servicing the fluid on a rear differential without a drain plug may require

A. axle shaft removal
B. driveshaft removal
C. a suction gun
D. a grease gun

The technician bleeds the power steering system by

A. opening a bleeder valve
B. removing the pressure line
C. removing the return line
D. turning the steering wheel

(Continued on the following page)

Sample Questions (continued)

Proper dynamic tire balancing can help to alleviate

A. torque steer reaction
B. high speed steering wheel shimmy
C. front end pull
D. low speed steering wheel shimmy

Seal materials used for high temperature applications are usually made from

A. leather
B. rubber
C. nitrile
D. silicone

When replacing a wiper blade, what should the technician do?

A. Leave the wiper arm up and unattended.
B. Change the blade when the arm is in the parked position.
C. Place a fender cover under the raised arm when the blade is being installed.
D. Replace the worn one and make sure the new one is on the driver's side.

When checking for a no or low heat condition in a car, the technician should

A. verify the coolant temperature
B. replace the heater core
C. replace the thermostat
D. verify the refrigerant charge

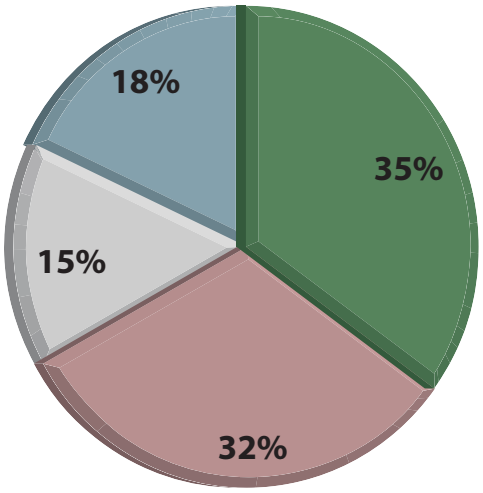
The emission control system that admits air into the exhaust system is known as a/an

A. PCV system
B. clean air package
C. air injection system
D. EGR valve

Performance Assessment

NOCTI performance assessments allow individuals to demonstrate their acquired skills by completing actual jobs using the tools, materials, machines, and equipment related to the technical area.

Administration Time: 1 hours and 50 minutes
Number of Jobs: 4



Areas Covered:

35% Brakes: Disc Brake Assembly Service
Participant will follow procedures to remove caliper mounting bolts and replace brake pads. Steps will require the participants to remount and torque caliper, measure and record required specifications and adhere strictly to all safety procedures.

32% Electrical/Electronic Systems: Test and Diagnose Battery, Starting, and Charging System
Participant will perform an open circuit voltage test, battery capacity test, starter draw test, ground circuit voltage drop test, and alternator output test. Steps will require the participant to look up and record specifications throughout the diagnosis.

15% Engine Performance: Test Electronic Engine Control Component
Participant will retrieve and document numerical trouble codes using service information to identify the trouble code(s) set. Participant will locate components on a vehicle that relate to the trouble codes identified.

18% Suspension and Steering: Tire Service and Balance
Participant will demonstrate the ability to dismount a tire from a wheel and mount a replacement tire on the wheel. Steps will include inflating the tire to 90% maximum inflation, balancing the tire and wheel assembly, and following safety standards.

Sample Job

Suspension and Steering: Tire Service and Balance

Maximum Time: 15 minutes

Participant Activity: The participant will dismount the tire from the wheel, mount replacement tire on wheel, inflate to 28 psi, balance tire and wheel assembly, and notify evaluator for inspection.

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SCSD CTE Student Portfolio

Definition: Student portfolios are a collection of personal documents, which showcase an individual's learning experiences, goals and achievements. Student portfolios are created and controlled by the student, facilitated by the instructor, and evaluated by outside entities.

Purpose: Students should be able to leave a program with as many tools in their toolbox as possible. Student portfolios are a way to assist students in marketing themselves in future interviews, by using the portfolio to illustrate his or her skills and/or talents.

SCSD CTE Student Portfolio Requirements

☐	**Table of Contents:**	This should list each section and piece of the portfolio in the order it appears
☐	**Cover letter**	A cover letter introducing the student to a potential employer about a specific job in his or her chosen pathway. Should focus on why the student is the best candidate for the job. It should compliment the resume, not repeat it.
☐	**Resume**	Should be professionally formatted. Usually a one-page document listing the student's name, personal information (address, phone, and email), an objective, work history or extracurricular/community involvement, education, certifications/credentials, personal skills/interests, and references.
☐	**Letters of Recommendation**	Students must include at least two (2) reference letters, provided by people outside the school who are familiar with his or her work or character. The reference letters can be employment-related, personal, or they can attest to the character of the student.
☐	**Certifications/Credentials**	Students should include copies of any credentials and/or certifications they have earned as a result of their program.
☐	**Transcript**	Student provides a copy of his or her full academic transcript.
☐	**Employability Profile**	Per NYSED: The work skills employability profile is intended to document student attainment of technical knowledge and work-related skills. Documents to validate skills reported on the profile could include, but are not limited to, an employer/teacher review of student work based on learning standards and expectations in the workplace, performance evaluations and observations. Students must have at least one employability profile completed within one year prior to school exit. If a student is involved in a number of work-based learning experiences and/or is employed part time, he/she may also have additional employability profiles as completed by others knowledgeable about his or her skills (e.g.,

	employer and/or job coach).
☐ **College Research**	A written research assignment focusing on three colleges offering programs in the student's chosen career pathway.
☐ **Career Plan**	Per NYSED: "Career Plans are an important mechanism to add relevance and meaning to learning experiences across subject areas. The career development model used to create the Career Plan aligns with the CDOS standards." A Career Plan document can be found here: http://www.p12.nysed.gov/cte/careerplan/docs/SecondaryCommencLvl.pdf
☐ **Student Awards**	This section is completely open ended. Students should use this section to illustrate any awards, projects, exemplars, service learning, or scholarships, they participated or earned during their high school years. They can show evidence through pictures, project documentation, news articles, program agendas, meeting minutes, videos, etc.
☐ **Work Samples**	Examples highlighting ***only the student's best work***, demonstrating the skills and competencies he or she has mastered. These should be presented professionally and be clearly captioned. ***Should not be thought as a scrapbook.*** Potential employers are only interested in the very best examples.

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Return to TOC

D. Postsecondary Articulation

> *The self-study team reviews the postsecondary articulation agreement for the program seeking approval. Postsecondary articulation agreements help students prepare for the transition from high school to advanced study in a particular career area. Articulation agreements provide direct benefits to students such as dual credits, college credits, advanced standing, or reduced tuition at a postsecondary institution. Articulation agreements may include several school districts and/or BOCES and multiple postsecondary institutions. The school district or BOCES may enter into multiple articulation agreements for a program seeking approval.*

Process

- Reviewers confirm that the postsecondary articulation agreement is designed to prepare students for the transition from high school study to postsecondary study in the career area of the program seeking approval.
- Reviewers confirm that a postsecondary articulation agreement has been obtained that offers direct benefits to students in the program seeking approval.
- Reviewers confirm that the postsecondary articulation agreement includes the
    - prerequisite skills, knowledge, or coursework required of students to participate in the agreement
    - roles and responsibilities of each institution
    - duration of the agreement
    - endorsement by officials of each institution
- Signed articulation agreements must be on file within the school district or BOCES.

Documentation

Documentation of the postsecondary articulation agreement is maintained by the school district or BOCES and updated whenever modifications are made. Recommendations on the technical assessment selection should be included in the self-study report and reviewed by the external committee. A copy of the signed postsecondary articulation agreement must be attached to the Application for Career and Technical Education Program Approval.

Source: http://www.p12.nysed.gov/cte/ctepolicy/guide.html

MORRISVILLE
STATE COLLEGE

Automotive Technology
AUTO 110 Summer Work Experience
AUTO 138 Automobile Industry Awareness
Articulation Agreement Between
SUNY Morrisville
And
Automotive Technology
Syracuse City School District

STATE UNIVERSITY OF NEW YORK • COLLEGE OF AGRICULTURE AND TECHNOLOGY
P.O. BOX 901 • MORRISVILLE, NEW YORK • 13408-0901

ADMISSIONS OFFICE
PHONE: 315-684-6046
FAX: 315-684-6427

MORRISVILLE STATE COLLEGE

General Student Agreement

The following agreement has been developed to meet the needs of students who are pursuing educational programs in the secondary schools listed below and are continuing their education at SUNY Morrisville.

The purpose of this articulation agreement is to provide a continuing articulation program that builds on past learning experiences and eliminates the unnecessary duplication of instruction. Specific articulation provisions are listed with each course.

Specific Articulation Provisions

In order to receive AUTO 110 and AUTO 138 credit at SUNY Morrisville, the responsible instructor (or designee) from Syracuse City School District agrees to:

1. Provide a letter of recommendation verifying the student's proficiency
2. Submit the student's transcripts and CTE Program Student Record if applicable.
3. Provide SUNY Morrisville with a copy of their curriculum outline in Automotive Technology upon initial agreement and renewal agreements.
4. To notify SUNY Morrisville in writing of any changes to the attached curriculum

SUNY Morrisville will grant credit whenever the student officially matriculates into the Automotive Technology degree program and meets the following criteria:

- Students must have a cumulative average of a C or better in the Syracuse City School District Automotive Technology Program and must have obtained CTE endorsement.
- Students will be granted three (3) credits of AUTO 110 and one (1) credit of AUTO 138 upon earning 12 credits with a cumulative GPA of at least a 2.0.
- Upon acceptance at SUNY Morrisville, the student should contact his or her high school counseling department to facilitate the granting of credit.
- This agreement will be reviewed and renewed every five (5) years.
- This agreement will be in effect upon signing by both parties and may be revised upon mutual agreement of both parties.

ADMISSIONS OFFICE
PHONE: 315-684-6046
FAX: 315-684-6427

MORRISVILLE STATE COLLEGE

X _____

Date: 6/14/18

Dr. Barry Spriggs
Provost
Morrisville State College

X _____

Date: 10/17/18

Jaime Alicea
Superintendent
Syracuse City School District

X _____

Date: 6/8/18

Dr. Joseph Bularzik
Dean School of Science, Technology and Health Studies

X _____

Date: 6/11/18

Raymond Grabowski
Chair/Associate Professor Automotive Technology

Note: The course outline can be viewed in the articulation drive with the electronic copy of this signed agreement

E. Work-based Learning

> *Work-based learning (WBL) is the "umbrella" term used to identify activities which collaboratively engage employers and schools in providing structured learning experiences for students. These experiences focus on assisting students to develop broad, transferable skills for postsecondary education and the workplace. A quality WBL experience can make school-based learning more relevant by providing students with the opportunity to apply knowledge and skills learned in the classroom to real world situations.*
>
> *Time requirements that students in an approved program may devote to work-based learning experiences are set by administrators of the approved program. This time should be an outcome of the self-study report and external review phases of the approval process. Work-based learning experiences must be sufficient in length and rigor to contribute to student achievement of the State learning standards as well as specific technical competencies.*

Process

- The school district/BOCES and the employer cooperatively plan all work experiences.
- The school district/BOCES set up a formal procedure for the supervision/coordination of all work-based learning experiences and must ensure that work-based learning coordinators are appropriately certified.
- The school district/BOCES provide work-based learning experiences for students with disabilities
- The school district/BOCES and employer must ensure compliance with federal and state labor laws, and the State Department of Labor regulations and guidelines.
- The school district/BOCES must explore and develop work-based learning experiences in settings that are relevant to the program.
- The school district/BOCES must comply with Commissioner's Regulations and Department policy where credit towards graduation is being awarded.

Documentation

Recommendations for work-based learning should be included in the self-study report and reviewed by the external committee.

Resources

New York State Education Department Work Experience Manual
http://www.emsc.nysed.gov/cte/wbl/

Source: http://www.p12.nysed.gov/cte/ctepolicy/guide.html

SYRACUSE CITY SCHOOL DISTRICT

Career and Technical Education

CTE

Internship Handbook

Preparing today's students for tomorrow's careers.

Table of Contents

Syracuse City School District

Career and Technical Education Internship

Forms are available on SCSD CTE website www.syracusecityschools.com/cte

Introduction

Syracuse City School District Career and Technical Education Work Based Learning

Learning in the workplace is not a new concept. Informal, on-the-job training is an integral part of all workforce development. Work based learning (WBL) provides structured learning experiences for students through exposure to a range of occupations. The Harvard University report, Pathways to Prosperity (February, 2011) suggested that "Work-linked learning should play an especially important role in the new American system of pathways to prosperity. There is mounting evidence that this would be an effective strategy for encouraging young adults to complete both high school and post-secondary degrees. Co-operative education is a tested model that provides students with extensive work experience that is monitored by the school."

Learning in the workplace is connected to and supports learning in the classroom. Work based learning also helps students achieve established academic standards. Properly developed and supported, work based learning provides a practical context for school subject matter and enhances the traditional classroom learning. Work based learning activities promote the development of broad, transferable skills and are a key element of a rigorous and relevant education for students. It enables students to acquire the attitudes, skills and knowledge needed to succeed in today's workplace.

Employer partners can develop and support work based learning experiences that promote the attainment of workplace knowledge and skills. In doing so, they can support academic achievement and personal growth by designing, structuring, supporting and connecting work based learning experiences. Work based learning also supports professional, technical, and work-readiness skills development. Quality work based learning should:

- Be designed to enhance the learning of skills and workplace knowledge in all aspects of the industry
- Be structured to be safe, legal and measurable
- Be developmentally appropriate
- Have identified learning objectives and assess student performance
- Develop career ready practices and provide opportunities for reflection
- Be supported and documented by appropriate planning and training; and
- Comply with State and Federal labor laws

Syracuse City School District Career and Technical Education Internship

A Career and Technical Education Internship provides an important link between the classroom and the workplace for students age 16 and older. It is a structured, time-limited, career preparation activity in which students are assigned to a workplace for a defined period of time to participate in and observe firsthand within a given industry. The internship enhances and adds relevance to classroom learning. The internship may provide the opportunity to work in teams, rotate through a number of departments and job functions, or work on a project of interest to the student. It is essentially a partnership that links school, community, and business/industry to provide a real-world environment in which students are given the opportunity to apply, and thereby enhance, the knowledge and skills obtained in the classroom. The internship is related to the student's CTE program of study, with the primary goals of promoting:

- The exploration of and experience in a field of interest
- Exposure to a wide range of careers and jobs within an industry
- Opportunities to develop, practice and demonstrate new skills
- The acquisition of occupational knowledge and awareness of the skills and education needed to be successful in the industry

Career & Technical Program/ Teacher Guidelines

Legal Requirements of SCSD CTE Internship Program

All Career and Technical Education Internship Programs have the common objective of providing opportunities for students to develop and demonstrate job skills at a supervised worksite. They are supported by training plans developed cooperatively by the employer, instructor, and student. There should be ongoing communication between the job mentors and the CTE teacher or work based learning coordinator concerning students' performance and needs.

Each internship program needs to have the following:

- New York State Education Department (NYSED) approval of the CTE program
- The employer understands that the student placement is governed by NYSED, New York State Workers' Compensation Board (NYSWCB), New York State Department of Labor (NYSDOL), and United States Department of Labor (USDOL) labor laws and regulations
- Employer is provided a Certificate of Insurance from school where school liability insurance protects the employer from any damage student may do in the workplace
- Students are given written notification that this program is unpaid and they are not due any wages per NYSDOL regulations
- Per NYS, students are required to receive coverage under the employer's Workers' Compensation Insurance if student is interning for a for-profit company. If student is interning at a non-profit entity, the student is required to be covered by the employer's visitors or volunteer insurance.
- Worksite must be in compliance with Occupational Safety and Health Administration (OSHA) regulations. Health and safety instruction/training appropriate for the job is provided by the SCSD and employer specific training is provided by the employer on the worksite.
- Memorandum of Agreement is in effect between the cooperating business and the education agency and outlines the responsibilities of the student, employer, parent/guardian, and school/coordinator, all of whom must sign to confirm their support of the agreement.
- Students complete an Internship Application indicating their understanding of, and agreement to, all rules and regulations of the program.
- Students receive instruction embedded within their CTE curriculum relating to the technical and career ready practices.
- An Internship Training Plan (ITP) is developed and used for each participating student. The plan identifies the general and specific job tasks the student will perform on the job, the desired learning outcomes of the experience, and the time frame the student will spend at each task. The training plan should be designed to ensure that the student will have a progressive learning experience.
- All participating students are meeting, or have met, academic requirements of their CTE programs and academic subjects. No students on academic probation will participate in the internship.
- Employment Certificate (Working Papers) for students provide verification that a student under age 18 is eligible for employment. The student, employer, and school must complete the form. Employment certificates are obtained at the high school – typically the main office, health office, or guidance office.
- Time Log/Record of Attendance provides an official record of the weekly and cumulative hours the student has worked during the experience. It must be maintained for each student.
- An intern evaluation will be done by the CTE teacher before the internship, at the midpoint of the internship and at the end of the internship. This same form will be completed by the on-site supervisor in the midpoint and at the end of the internship.

SCSD CTE Internship Program Checklist (To be completed by CTE teacher or WBL coordinator)

- ☐ NYSED has approved the CTE program
- ☐ The employer understands that the student placement is governed by NYSED, NYSWCB, NYSDOL, and USDOL labor laws and regulations
- ☐ NYSED Application for Employment certificate (working papers, usually available in school counseling office) has been verified (NYSED form attached)
- ☐ Employer is provided with a Certificate of Insurance from school to cover liability (sample attached)
- ☐ A written Memorandum of Agreement is in effect between the cooperating business and the education agency (**Form #1**)
- ☐ Students complete an Internship Application indicating their understanding of, and adherence to all rules and regulations set forth by the program. (**Form #2**)
- ☐ Students receive instruction embedded within their CTE curriculum relating to the technical and Career Ready Practices. The CTE teacher and the student have completed the SCSD CTE Internship Ready to Work Assessment (**Form #3**)
- ☐ An Internship Training Plan (ITP) is developed and used for each participating student (**Form #4**)
- ☐ Students are given written notification that this program will be unpaid and they are not due any wages per NYS DOL regulations (**Form #5**)
- ☐ All SCSD internship candidates have received appropriate safety certification for the industry provided by the school before internship and employer specific training and orientation is provided by the employer on the worksite (**Form #6 & Form #7**)
- ☐ All participating students are meeting, or have met, academic requirements of their CTE programs and academic subjects
- ☐ Review Time Log/Record of Attendance which serves as an official record of the hours the student has worked during the experience (**Form #8**)

REQUIRED FORMS

NYSED Application for Employment Certificate

Certificate of Insurance

SCSD Memorandum of Agreement
(Form #1)

SCSD Internship Program Application
(Form #2)

SCSD Internship Ready to Work Assessment
(Form #3)

SCSD Internship Training Plan
(Form #4)

SCSD Notification of unpaid internship
(Form #5)

SCSD Internship Safety Certification
(Form #6)

SCSD Worksite Orientation
(Form #7)

SCSD Weekly Time Log/Record of Attendance
(Form #8)

Forms are available online at the SCSD CTE website : www.syracusecityschools.com/cte

CTE Teacher/WBL Coordinator

Date

Employer Internship Partner Guidelines

SCSD CTE Internship Employer Requirements

Safety

At all times, both school personnel and the employment site personnel must take appropriate steps to ensure that safe practices are stressed and followed. However, it is impossible to guarantee that no injuries resulting in medical expenses and liability will occur. The following prudent steps are encouraged:

1. In-school course content must include training related to safety at the worksite. Appropriate safety certification should be offered if possible. SCSD internship candidates will have received appropriate safety training before beginning their internship.
2. Any sites used for SCSD CTE internships will be reviewed by school personnel prior to placing a student at the worksite.
3. Employers must provide safety training information to interns as they would a new employee. Safety training must be provided if the employer engaged in a particularly hazardous occupation for minors as defined by the USDOL.
4. Provisions for student safety must be included as part of the training agreement signed by the employer, student, parent, and school representative.

Types of Liability Insurance and Risk Management

Workers' Compensation and Employer Liability Insurance

All employers will have a policy that provides coverage for the Workers' Compensation statutory benefits as well as liability coverage for certain employment-related situations. Verification of employer's Workers Compensation insurance will be included in the Memorandum of Agreement. The SCSD will also have insurance that covers the student participating in a school-related internship experience.

SCSD CTE Internship Expectations & Responsibilities of Employer

Before

- Determine projects or activities that would be appropriate for your student intern
- Communicate with staff that an intern will be at the workplace and identify mentors
- Designate one employee, the on-site supervisor, to work with coordinator/teacher to develop and define successful student objectives and experiences and record on the student Internship Training Plan

During

- Provide student with a Work Site Orientation to organization and any required training
- Train student intern for your work site, including all work site safety training
- Maintain a quality, safe and legal learning experience; provide effective supervision
- Use the Internship Training Plan as a guide for the internship; hold intern to employee standards/ expectations; oversee, direct, and provide adequate tasking to maximize learning
- Meet with coordinator/teacher and student to decide on an ongoing communications strategy
- Evaluate intern work and provide constructive criticism
- Assist student in working toward learning outcomes
- Coordinate student schedule, approve weekly timesheets
- Communicate successes and opportunities at the workplace that the teacher can use to enhance the value of classroom connections
- Complete a student evaluation midway through internship and discuss with student

After

- Complete a final evaluation of the student
- Hold debriefing session and review performance with the student and teacher
- Complete a Program Evaluation

SCSD CTE Internship Employer Internship Partner Checklist (To be completed by On-Site Supervisor/Mentor)

- ☐ Meet with coordinator/teacher and student to agree on ongoing communication strategy (e-mail, text, telephone, etc.)
- ☐ A written Memorandum of Agreement is in effect between the cooperating business and the education agency (**Form #1**)
- ☐ Work with coordinator/teacher to develop and define successful student objectives and experiences and record on the student Internship Training Plan (**Form #4**)
- ☐ Coordinate student schedule, approve weekly time log/record of attendance (**Form #8**)
- ☐ Communicate with staff that an intern will be at the workplace and identify on-site supervisor and/or mentor

On-Site Supervisor _____

Mentor Name _____

- ☐ Provide student with Work Site Orientation to organization and any required training (Form #7)
- ☐ Create and maintain a quality, safe and legal learning experience
- ☐ Hold intern to employee standards/expectation; provide student support and candid feedback
- ☐ Communicate successes and opportunities at the workplace that the teacher can use to enhance the value of classroom connections
- ☐ Complete an interim SCSD CTE Internship Ready to Work Assessment of student performance and discuss with student (**Form #3**)
- ☐ Provide effective supervision
- ☐ Complete a final assessment of the student (**Ready to Work Assessment, Form #3 and Student Training Plan, Form #4**)
- ☐ Complete a program evaluation (**Form #10**)

REQUIRED FORMS

SCSD Memorandum of Agreement
(Form #1)

SCSD Internship Ready to Work Assessment
(Form #3)

SCSD Internship Training Plan
(Form #4)

SCSD Worksite Orientation
(Form #7)

SCSD Weekly Time Log/Record of Attendance
(Form #8)

SCSD Mentor Program Evaluation
(Form #10)

Forms are available online at the SCSD CTE website : www.syracusecityschools.com/cte

_____ _____

Employer/ Mentor Date

Student Intern Guidelines

Expectations and Responsibilities of Students

Before

- Obtain working papers (if under 18)
- Return Internship Application and all permission slips with appropriate signatures
- Meet with your teacher/coordinator and worksite supervisor to finalize an Internship Training Plan

During

- Attend Orientation at the worksite
- Observe all workplace rules and regulations particularly those applicable to safety and security concerns
- Perform all duties, jobs and assigned tasks; treat internship like a real job
- Maintain regular work schedule and notify supervisor in advance of any vacation/appointments
- Track you hours as instructed on Weekly Timesheet
- Develop skill specific learning outcomes with your worksite supervisor
- Participate in ongoing reflection journal activities and skill building classroom assignments
- Communicate with your teacher/coordinator and worksite supervisor if issues arise
- Keep copies of all necessary paperwork (work journal, training plan, Weekly Time Log/Record of Attendance, and evaluations)

After

- Participate in self-evaluation and reflection activities
- Update your resume based upon new skills and experiences gained
- Send thank you note to employer

SCSD CTE Internship Student Checklist (To be completed by student)

- ☐ Obtain NYSED Application for Employment Certificate (usually available in school counseling office, application attached)
- ☐ A written Memorandum of Agreement is in effect between the cooperating business, the education agency, and signed by student and parents (**Form #1**)
- ☐ Return Internship Application (**Form #2**) and all permission slips with appropriate signatures
- ☐ Develop skill specific learning outcomes with your worksite supervisor
- ☐ Meet with your teacher/coordinator and worksite supervisor to finalize an Internship Training Plan for the internship (**Form #4**)
- ☐ Attend orientation at the worksite (**Form #7**)
- ☐ Observe all workplace rules and regulations particularly those applicable to safety and security concerns
- ☐ Perform all duties, jobs and assigned tasks; treat internship like a real job
- ☐ Maintain regular work schedule and notify supervisor in advance of any vacation/appointments
- ☐ Track you hours as instructed on time log/record of attendance (**Form #8**)
- ☐ Participate in ongoing reflection activities and skill building classroom assignments
- ☐ Communicate with your teacher/coordinator and worksite supervisor, if issues arise and keep copies of all necessary paperwork (work journal, training plan, Weekly Time Log/Record of Attendance, and evaluations)
- ☐ Participate in self-evaluation and reflection activities (**Forms #3 & #9**)
- ☐ Update your resume based on new skills and experiences gained
- ☐ Send thank you note to employer

REQUIRED FORMS

SCSD Memorandum of Agreement
(Form #1)

SCSD Internship Program Application
(Form #2)

SCSD Internship Ready to Work Assessment
(Form #3)

SCSD Internship Training Plan
(Form #4)

SCSD Worksite Orientation
(Form #7)

SCSD Weekly Time Log/Record of Attendance
(Form #8)

SCSD Student Evaluation
(Form #9)

Forms are available online at the SCSD CTE website : www.syracusecityschools.com/cte

Student _____ Date _____

SCSD CTE Internship Forms

NYSED Application for Employment Certificate

SCSD Certificate of Insurance to Cover Student Liability (Sample)

Form #1	SCSD Memorandum of Agreement
Form #2	SCSD Internship Program Application
Form #3	SCSD Internship Ready to Work Assessment
Form #4	SCSD Internship Training Plan
Form #5	SCSD Notification of unpaid internship
Form #6	SCSD Internship Safety Certification
Form #7	SCSD Worksite Orientation
Form #8	SCSD Weekly Time Log/Record of Attendance
Form #9	SCSD Student Evaluation
Form #10	SCSD Mentor Program Evaluation

Forms are available on SCSD CTE website at www.syracusecityschools.com/cte

AT-17
Rev. 5/10

THE UNIVERSITY OF THE STATE OF NEW YORK
THE STATE EDUCATION DEPARTMENT
ALBANY, NY 12234

APPLICATION FOR EMPLOYMENT CERTIFICATE

See reverse side of this form for information concerning employment of minors.

All signatures must be handwritten in ink, and applicant must appear in person before the certifying official.

THIS APPLICATION DOES NOT AUTHORIZE EMPLOYMENT

PART I – Parental Consent – (To be completed by applicant and parent or guardian)

Parent or guardian must appear at the school or issuing center to sign the application for the first certificate for full-time employment, unless the minor is a graduate of a four-year high school and presents evidence thereof. For all other certificates, the parent or guardian must sign the application, but need not appear in person to do so.

Date……

I, …… Age ……..…
[Applicant]

Home Address ……....., apply for a certificate as checked below
[Full Home Address including Zip Code]

- ☐ Nonfactory Employment Certificate – Valid for lawful employment of a minor 14 or 15 years of age enrolled in day school when attendance is not required.
- ☐ Student General Employment Certificate – Valid for lawful employment of a minor 16 or 17 years of age enrolled in day school when attendance is not required.
- ☐ Full-Time Employment Certificate – Valid for lawful employment of a minor 16 or 17 years of age who is not attending day school.

I hereby consent to the required examination and employment certification as indicated above.

……
[Signature of Parent or Guardian]

PART II – Evidence of Age – (To be completed by issuing official only)

……. – Check evidence of age accepted – Document # (if any) ……..
[Date of Birth]

Birth Certificate State Issued Photo I.D Driver's License Schooling Record Other……
[Specify]

PART III – Certificate of Physical Fitness

Applicant shall present documentation of physical exam from a school or private physician, physician's assistant or nurse practitioner licensed to practice within New York State. Said examination must have been given within 12 months prior to issuance of the employment certificate. Date of physical exam on file with school …… If physical exam is over 12 months, provide student with certificate of physical fitness to be completed by school medical director or private health care provider.

If the physical exam or Certificate of Physical Fitness is limited with regards to allowed work/activity, the issuing official shall issue a Limited Employment Certificate (valid for a period not to exceed 6 months unless the limitation noted by the physician is permanent, then the certificate will remain valid until the minor changes jobs. Enter the limitation on the employment certificate. THE PHYSICIAN'S CERTIFICATION SHOULD BE RETURNED TO THE APPLICANT.

PART IV – Pledge of Employment – (To be completed by prospective employer)

Part IV must be completed only for: (a) a minor with a medical limitation; and (b) for a minor 16 years of age or legally able to withdraw from school, according to Section 3205 of the Education Law, and must show proof of having a job.

The undersigned will employ …… residing at ……
[Applicant]

as …… at ……
[Description of Applicant's Work] **[Job Location]**

for …… days per week ……. hours per day, beginning …… a.m. ……..…… p.m.

…… Factory ending……. a.m. ……p.m.
[Name of Firm]

Nonfactory ……..
[Address of Firm]

…… Starting date …….. ……...
[Telephone Number] **[Signature of Employer]**

PART V – Schooling Record – (To be completed by school official)

Part V must be completed only for a minor 16 years of age who is leaving school and resides in a district (New York City and Buffalo) which require a minor 16 years of age to attend school, according to Section 3205 of the Education Law.

I certify that the records of …… ……
[Name of School] **[Address]**

Show that …….. whose date of birth is ……
[Name of Applicant]

Is in grade…… ……
[Signature of Principal or Designee]

PART VI – Employment Certification – (To be completed by issuing official only)

Certificate Number ……..... Date Issued ……

…… …….. ……
[School or Issuing Center] **[Address]** **[Signature of Issuing Officer]**

GENERAL INFORMATION

An employment Certificate (Student Nonfactory, Student General, or Full Time) may be used for an unlimited number of successive job placements in lawful employment permitted by the particular type of certificate.

A Nonfactory Employment Certificate is valid for 2 years from the date of issuance or until the student turns 16 years old, with the exception of a Limited Employment Certificate. A Limited Employment Certificate is valid for a maximum of 6 months unless the limitation noted by the physician is permanent, then the certificate will remain valid until the minor changes job. It may be accepted only by the employer indicated on the certificate.

A new Certificate of Physical Fitness is required when applying for a different type of employment certificate, if more than 12 months have elapsed since the previous physical for employment.

An employer shall retain the certificate on file for the duration of the minor's employment. Upon termination of employment, or expiration of the employment certificate's period of validity, the certificate shall be returned to the minor. A certificate may be revoked by school district authorities for cause.

A minor employed as a Newspaper Carrier, Street Trades Worker, Farmworker, or Child Model, must obtain the Special Occupational Permit required.

A minor 14 years of age and over may be employed as a caddy, babysitter, or in casual employment consisting of yard work and household chores when not required to attend school. Employment certification for such employment is not mandatory.

An employer of a minor in an occupation which does not require employment certification should request a Certificate of Age.

PROHIBITED EMPLOYMENT

Minors 14 and 15 years may not be employed in, or in connection with a factory (except in delivery and clerical employment in an enclosed office thereof), or in certain hazardous occupations such as: construction work; helper on a motor vehicle; operation of washing, grinding, cutting, slicing, pressing or mixing machinery in any establishment; painting or exterior cleaning in connection with the maintenance of a building or structure; and others listed in Section 133 of the New York State Labor Law.

Minors 16 and 17 years of age may not be employed in certain hazardous occupations such as: construction worker; helper on a motor vehicle, the operation of various kinds of power-driver machinery; and others listed in Section 133 of the New York State Labor Law.

HOURS OF EMPLOYMENT

Minors may not be employed during the hours they are required to attend school.

Minors 14 and 15 years of age may not be employed in any occupation (except farmwork and delivering, or selling and delivering newspapers):

When school is in session:

- more than 3 hours on any school day, more than 8 hours on a nonschool day, more than 6 days in any week, for a maximum of 18 hours per week, or a maximum of 23 hours per week if enrolled in a supervised work study program approved by the Commissioner.
- after 7 p.m. or before 7 a.m.

When school is not in session:

- more than 8 hours on any day, 6 days in any week, for a maximum of 40 hours per week.
- after 9 p.m. or before 7 a.m.

This certificate is not valid for work associated with newspaper carrier, agriculture or modeling.

Minors 16 and 17 years of age may not be employed: --

When school is in session:

- more than 4 hours on days preceding school days; more than 8 hours on days not preceding school days (Friday, Saturday, Sunday and holidays), 6 days in any week, for a maximum of 28 hours per week.
- between 10 p.m. and 12 midnight <u>on days followed by a school day</u> without written consent of parent of guardian <u>and</u> a certificate of satisfactory academic standing from the minor's school (to be validated at the end of each marking period).
- between 10 p.m. and 12 midnight <u>on days not followed by a school day</u> without written consent of parent or guardian.

When school is not in session:

- more than 8 hours on any day, 6 days in any week, for a maximum of 48 hours per week.

EDUCATION LAW, SECTION 3233

"Any person who knowingly makes a false statement in or in relation to any application made for an employment certificate or permit as to any matter by this chapter to appear in any affidavit, record, transcript, certificate or permit therein provided for, is guilty of a misdemeanor."

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	
	PHONE (A/C, No, Ext):	FAX (A/C, No):
	E-MAIL ADDRESS:	
	INSURER(S) AFFORDING COVERAGE	NAIC #
INSURED	INSURER A :	
	INSURER B :	
	INSURER C :	
	INSURER D :	
	INSURER E :	
	INSURER F :	

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	**GENERAL LIABILITY**						EACH OCCURRENCE	$
	☐ COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence)	$
	☐ CLAIMS-MADE ☐ OCCUR						MED EXP (Any one person)	$
	500,000 Retained						PERSONAL & ADV INJURY	$
							GENERAL AGGREGATE	$
	GEN'L AGGREGATE LIMIT APPLIES PER:						PRODUCTS - COMP/OP AGG	$
	☐ POLICY ☐ PRO-JECT ☐ LOC							$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$
	☐ ANY AUTO						BODILY INJURY (Per person)	$
	☐ ALL OWNED AUTOS ☐ SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	☐ HIRED AUTOS ☐ NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$
								$
	☐ **UMBRELLA LIAB** ☐ OCCUR						EACH OCCURRENCE	$
	☐ **EXCESS LIAB** ☐ CLAIMS-MADE						AGGREGATE	$
	☐ DED ☐ RETENTION $							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y / N						☐ WC STATU-TORY LIMITS ☐ OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? ☐ **(Mandatory in NH)**	N / A					E.L. EACH ACCIDENT	$
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$
							E.L. DISEASE - POLICY LIMIT	$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

CERTIFICATE HOLDER

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Teacher

Employer

Student

Syracuse City School District

Syracuse City School District
725 Harrison Street, Syracuse, NY 13210

Memorandum of Agreement

(Form #1)

Type of Work Based Learning Experience: Non-Paid Internship

This Work Based Learning Experience Agreement is entered into by and between the Syracuse City School District (SCSD) _____ (Student), his/her Parents/Guardian, _____ (Parent/Guardian), and his/her Work Experience Employer, _____ (Employer), on the date indicated below, whereby the Student will participate in a CTE Internship (Program at the Employer's place of business located at _____ , on _____ , during the hours of _____ .

THE STUDENT UNDERSTANDS THAT HIS/HER CONDUCT IS A REFLECTION UPON THE SCHOOL NAME AND AGREES THAT HE/SHE WILL:

1. Provide his/her own transportation to and from the Employer's place of business (the SCHOOL, the Student's home school, the SCHOOL and the Employer are in no way responsible for providing the Student with transportation to and/or from the Employer's place of business at any time or for any incidents or accidents which may occur while the Student is on route to or from the Employer's place of business)
2. Demonstrate a conscientious attitude and be honest, punctual, cooperative, courteous and willing to learn while at the Employer's place of business.
3. Keep regular attendance as agreed upon with the Employer, excluding Employer-observed holidays, days on which the Employer's place of business is closed or other legal absences and understands that his/her attendance will be taken from his/her weekly attendance reports.
4. Keep regular attendance at his/her home school.
5. Give the Employer as much advance notice as possible if unable to report for work or to do so in a timely manner and contact the CTE teacher at (315) _____.
6. Report to SCHOOL if the Internship location is closed for any reason during at time in which the student is scheduled to be at the Internship location and SCHOOL is in session.
7. Complete weekly time log/record of attendance (Form # 8) reports as required by SCHOOL.
8. Engage in only those work based learning experiences approved by the supervisor at the work-site.

THE EMPLOYER AGREES THAT IT WILL:

1. Not permit the Student to replace any paid employee (in the case of an Internship).
2. Advise the Student of all company rules, regulations and policies which relate to the Student.
3. Explain to the Student the responsibilities and duties of his/her internship and shall correlate on-the-job training with safety instructions given by the SCHOOL.
4. The work of the Student in occupations declared particularly hazardous by the U.S. Department of Labor shall be (i) incidental to the Student's training; (ii) intermittent and for short periods of time; and (iii) under the direct and close supervision of a qualified and experienced person.
5. Provide direct supervision by an authorized employee to the Student as needed.
6. Complete an accident report form and return to SCHOOL in the event of an accident.
7. Review the Student's performance with him/her on a weekly basis and sign a weekly time sheet, complete an evaluation of the Student on forms provided by the SCHOOL.
8. Inform the SCHOOL Instructor/Coordinator when the Student is absent or not performing adequately by calling (315)_____ .

9. Observe any and all laws that may relate to the Student's work experience.

THE SCHOOL AGREES THAT IT WILL:

1. Carry the insurance listed for students during class activities including internships, job experiences and work placement.
2. Accident Insurance: SCHOOL carries tertiary accident insurance to cover medical expenses as a result of an accident. The parent's health insurance is primary and the home school district would be secondary. General Liability Insurance: SCHOOL carries general liability insurance to cover up to one million dollars for a single event. As added protection, a ten million dollar umbrella policy is also in effect.
3. Assist the Student in securing internship placement regardless of his/her sex, race, color, national origin or disability (all inquiries and/or complaints regarding discrimination should be directed to the compliance officer, Patty Clark, SCSD Central Office, 725 Harrison Street, Syracuse, New York 13210. Telephone: (315) 435-4131.
4. Provide the STUDENT with safety instructions correlated by the EMPLOYER with on-the-job training.
5. Review with the Student and the Employer their respective responsibilities and obligations while participating in the Program.

The parties/signatories hereby agree that good communication and understanding between them is vital if the objectives of this Program are to be met and that joint conferences between the Student, Employer, Parent/Guardian, Instructor, and others may be scheduled from time to time in order to discuss:

1. the student's progress
2. any misunderstandings
3. the reason for termination of the Agreement

This Agreement is not in effect until signed by all parties. This Agreement may be terminated at any time by any party upon written notice to the other parties.

We the undersigned, have reviewed and agreed to the terms and conditions set forth herein.

Date	/ /	Student
Date	/ /	Parent/ Guardian
Date	/ /	Daytime Phone
		Evening Phone
Date	/ /	Employer/ Supervisor
Date	/ /	CTE Teacher
Date	/ /	Home School Principal

The Syracuse City School District hereby advises students, parents, employees and the general public that it is committed to providing equal access to all categories of employment, programs and educational opportunities, including career and technical education opportunities, regardless of actual or perceived race, color, national origin, Native American ancestry/ethnicity, creed or religion, marital status, sex, sexual orientation, age, gender identity or expression, disability or any other legally protected category under federal, state or local law.
Inquiries regarding the District's non-discrimination policies should be directed to:
Executive Director of Student Support Services, Civil Rights Compliance Officer, Syracuse City School District, 725 Harrison Street • Syracuse, NY 13210
(315) 435-4131, Email: CivilRightsCompliance@scsd.us

Teacher

Student

Syracuse City School District

Syracuse City School District
725 Harrison Street, Syracuse, NY 13210

CTE Internship Program Application Form

(Form #2)

Personal Information

Last Name	First Name	Age	Date of Birth
Street		Home Telephone Number	Cell Phone Number
City, State, Zip		Emergency Contact Name	Telephone Number
Email Address		Relationship to Emergency Contact	
Primary Parent/ Guardian Name		Parent/ Guardian's Telephone Number Home Cell	
Primary Parent/ Guardian Email			
Secondary Parent/ Guardian Name		Secondary Parent/ Guardian's Telephone Number Home Cell	
Secondary Parent/ Guardian Email			
Working Papers Certificate Number		SCSD Student schedule should be attached to this form School Counselor	

School Year Training/ Work Schedule Availability

Please list the hours you can work during a typical weekly schedule

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday

Please check applicable box: ☐ Fixed Schedule ☐ Schedule will vary

Sports, Clubs, and Other Activities

Transportation

Please check the appropriate response

Do you have a license? ☐ Yes ☐ No	If YES, which license do you have? ☐ Full License ☐ Junior License
Do you drive to school? ☐ Yes ☐ No	License Number:

If you do not have a license, how do you plan on getting to and from your internship?

☐ Public Transportation ☐ Other

Teacher

Student

INSURANCE COVERAGE IN CASE OF INJURIES TO STUDENT AT INTERNSHIP:

EMPLOYER'S WORKER'S COMPENSATION MUST COVER THE STUDENT IN CASE OF INJURIES AT TRAINING SITE.

PROGRAM AWARENESS STATEMENT TO BE CHECKED BY STUDENTS:

☐ In order to receive credit for my work-based learning experience, I must be training at a legal site approved by the school's CTE Teacher or work-based learning coordinator.

☐ I must notify my CTE teacher or work-based learning coordinator immediately if there is a change of work schedule or duties at the training site.

☐ Failure to report any disciplinary action, termination, or proper documentation of hours may result in the student not earning school credit.

☐ Students must present all daily attendance records to CTE teacher or work-based learning coordinator weekly and complete all assignments related to the program.

☐ I must immediately notify my work-based learning coordinator if I have or develop any medical condition(s) which affects my ability to participate in training, such as allergies, lifting heavy items, movement, standing, sitting, migraine headaches, etc. If there are any current conditions, please state them below. The presence of such a condition will not necessarily preclude me from participating in the internship and accommodations may be provided.

PARENTAL/GUARDIAN PERMISSION AND PICTURE/NEWS STORY RELEASE:

I give my child,_____ permission to participate in the work-based learning internship at the Syracuse City School District. By signing the parental permission form, it is understood that:

- All the information is accurate.
- In order to receive credit, students must work a minimum of 150 hours during the school year.
- All students must report to CTE teacher or work-based learning coordinator in the case of any change in employment.
- Failure to report any disciplinary action, termination, or proper documentation may result in the student not earning school credit.
- Students must present all daily attendance records to CTE teacher or work-based learning coordinator weekly and complete all assignments related to the program.
- A student with a junior license must only drive to school if they go directly to work following the school day and they must carry with them the proper paperwork as directed by the work-based learning coordinator.

In addition to agreeing with the above statements, please check off one:

☐ I give permission for my child's photograph or name to be used to promote the Work Experience Program.

☐ I do not want my child's photograph or name to be used to promote the Work Experience Program.

_____	_____	___/___/___
Parent/ Guardian's Name	Parent/ Guardian's Signature	Date

_____
Relationship to Student

_____	_____	___/___/___
Student's Name	Student's Signature	Date

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Syracuse City School District

Syracuse City School District
725 Harrison Street, Syracuse, NY 13210

CTE Internship Ready to Work Assessment

(Form #3)

Teacher | Employer | Student

Name _____ Program _____ Date ___/___/___

Scale

1 = Seldom. 2 = Occasionally. 3 = Usually. 4 = Always.

		Student	Teacher	Onsite Supervisor
ZEST				
1	Actively participates			
2	Shows enthusiasm			
3	Invigorates others			
GRIT				
4	Finishes whatever he or she begins			
5	Tries very hard even after experiencing failure			
6	Works independently with focus			
SELF CONTROL SCHOOL WORK				
7	Comes to class prepared			
8	Pays attention and resists distractions			
9	Remembers and follows directions			
10	Gets to work right away rather than procrastinating			
SELF-CONTROL INTERPERSONAL				
11	Remains calm even when criticized or otherwise provoked			
12	Allows others to speak without interruption			
13	Is polite to adults and peers			
14	Keeps his/her temper in check			

		Student	Teacher	Onsite Supervisor
OPTIMISM				
15	Gets over frustrations and setbacks quickly			
16	Believes that effort will improve his or her future			
GRATITUDE				
17	Recognizes and shows appreciation for others			
18	Recognizes and shows appreciation for his/her opportunities			
SOCIAL INTELLIGENCE				
19	Is able to find solutions during conflicts with others			
20	Demonstrates respect for feelings of others			
21	Knows when and how to include others			
CURIOSITY				
22	Is eager to explore new things			
23	Asks and answers questions to deepen understanding			
24	Actively listens to others.			
ACADEMIC PERFORMANCE				
25	Completes all assignments with quality and timeliness			
26	Uses tools appropriately and safely			
COMMITMENT				
27	Attends class with one or less absences per quarter			
28	Demonstrates loyalty and appreciation to the program and instructors			

Teacher

Employer

Student

Syracuse City School District

Syracuse City School District
725 Harrison Street, Syracuse, NY 13210

CTE Internship Training Plan
(Form #4)

Student's Name	Email	
Student's Address	Telephone	Date of Birth
CTE Program Career Cluster	Working Papers Certificate #	
School Coordinator		
Phone Number		
Fax Number		
Email		
Employer		
Phone Number		
Fax Number		
Email		
Immediate Job Supervisor		
Phone Number		
Email		
Corporate Address		

Training Schedule

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday

Insurance Coverage

- ☐ Student is a non-paid intern – Worker's Compensation
- ☐ Student is a non-paid observer – Worker's Compensation

Transportation Provided by

- ☐ Student/parent will provide own transportation
- ☐ School district will provide transportation during school hours

Goals for this Work-Based Learning Student:

1. To explore, learn and develop the skills necessary for this career.
2. To develop the Career Ready Practices necessary for success in the global, competitive world.
3. To be trained in the safe operations of this job title.
4. To be able to demonstrate positive behavior and appropriate dress.

(Form #4 Continued)

JOB TASKS AND LEARNING OUTCOMES (Determined by the Employer and Coordinator)	ACHIEVEMENT LEVEL AND COMMENTS 1. Mastered skill 2. Needs more training at the work site. 3. Needs more training at school. 4. Has not reached this training area.
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	

CAREER READY PRACTICES	Always	Frequently	Occasionally	Rarely
1. Student works cooperatively as a team member?	☐	☐	☐	☐
2. Student is able to read instructions for information and application.	☐	☐	☐	☐
3. Student can calculate and measure for information and application.	☐	☐	☐	☐
4. Student can behave in a responsible manner without supervision.	☐	☐	☐	☐
5. Student can communicate verbally and in writing to evoke clear understanding.	☐	☐	☐	☐
6. Student demonstrates good listening and follow through skills.	☐	☐	☐	☐
7. Student demonstrates critical thinking and problem solving skills.	☐	☐	☐	☐
8. Student can locate and manage resources for problem solving.	☐	☐	☐	☐
9. Student demonstrates a positive work ethic.	☐	☐	☐	☐
10. Student demonstrates computer literacy.	☐	☐	☐	☐

(Form #4 Continued)

SAFETY TRAINING	DATE OF SAFETY TRAINING	ACHIEVEMENT LEVEL AND COMMENTS 1. Mastered safety training instruction. 2. Needs more safety training at work site. 3. Needs more safety training at school. 4. Has not reached this training area.
1. Safety precautions related to stairs, floors, office equipment and furniture.		
2. Safety precaution related to proper dress apparel, shoes, gloves, head, eye and ear protection.		
3. Safety precaution related to use of tools, machines, and chemicals.		
4. Safety precautions related to fire, weather and other natural disasters.		
5. Safety precautions related to sexual harassment and workplace violence.		

DRESS AND BEHAVIOR CODE FOR POSITION	ACHIEVEMENT LEVEL AND COMMENTS 1. Dresses/behaves appropriately 2. Needs to modify dress/behavior. 3. Needs personal consultation.

Employer Name	Employer Signature	Date / /
Work-based Learning Coordinator Name	Work Based Learning Coordinator Signature	Date / /
Parent/ Guardian Name	Parent/Guardian Signature	Date / /
Student Name	Student Signature	Date / /

If you have any questions please do not hesitate to contact me at (315) 435-_____.

Thank you for your cooperation! _____ , CTE Teacher

Syracuse City School District

Syracuse City School District
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SCSD CTE Internship
Notification of Unpaid Internship
(Form #5)

This form serves as notification that the Syracuse City School District CTE Internship is an unpaid internship and students are not due any wages per New York State Department of Labor.

_____	____/____/____
Student	Date
_____	____/____/____
CTE Teacher/ WBL Coordinator	Date
_____	____/____/____
Worksite Representative/ Mentor	Date

Syracuse City School District

Syracuse City School District
725 Harrison Street, Syracuse, NY 13210

SCSD Internship Safety Certification
(Form #6)

Student _____ Date ____/____/____

Mentor or Supervisor _____ CTE/ WBL Teacher _____

Student CTE Program SCSD Career and Technical Program:

_____

SAFETY CERTIFICATIONS		Date
OSHA 10	☐	/ /
Safe Serv	☐	/ /
First Aid	☐	/ /
CPR	☐	/ /
Other	☐	/ /

Teacher

Employer

Student

Syracuse City School District

Syracuse City School District
725 Harrison Street, Syracuse, NY 13210

SCSD Internship Worksite Orientation
(Form #7)

Student _____ Date ___/___/___

Mentor or Supervisor _____ CTE/ WBL Teacher _____

Company Orientation

Directions: Be sure that your student employee obtains information about the factors listed below. Check the information on each item as it is completed. Return the completed form to the CTE Teacher or Work Based Learning Coordinator.

Tour of Workplace

- ☐ A tour of the workplace
- ☐ An overview of the company safety plan
- ☐ Introductions to co-workers

Tour of Employee Facilities

- ☐ Rest rooms
- ☐ Lunch room
- ☐ Where to store personal belongings

Other _____

Safety Plan

- ☐ Safety plan
- ☐ Stairwell/fire exits
- ☐ Fire Extinguishers
- ☐ Special hazards
- ☐ Accident prevention
- ☐ Safety Training Log, updated as needed

About the Company

- ☐ Discuss company organizational structure
- ☐ Review type of business, products, services
- ☐ Overview of who the customers are

Other _____

Department/Position Specifics

- ☐ Explanation of work schedule
- ☐ Review of dress and conduct code
- ☐ Review of hours, breaks and lunch policies
- ☐ Location of time clock or sign-in
- ☐ Attendance requirements, including procedures for calling in when absent
- ☐ Relationship to working with other departments or co-workers

Job Specific

- ☐ How to use the phones and office equipment
- ☐ Supplies, paper, pens, etc.
- ☐ Job description, Work-Based Learning Plan and evaluation process

Supervisors Expectations

- ☐ Dress code including clothing, hair and jewelry
- ☐ Work performance including productivity and work habits
- ☐ Company culture

Materials provided to intern

- ☐ Copy of personnel handbook
- ☐ Organizational charts
- ☐ Telephone directory
- ☐ Security procedures

Employer/training sponsor _____ Date ___/___/___

Student _____ Date ___/___/___

CTE Teacher/WBL Coordinator _____ Date ___/___/___

Teacher

Employer

Student

Syracuse City School District

Syracuse City School District
725 Harrison Street, Syracuse, NY 13210

Weekly Time Log/Record of Attendance
(Form #8)

Student _____ Training Title _____

Worksite Supervisor _____

Time Log for the Week of: ____/____/____

	Date	Start Time	End Time	Hours Worked
Sunday				
Monday				
Tuesday				
Wednesday				
Thursday				
Friday				
Saturday				

Total Weekly Hours: _____

Student please list any new tasks performed this week: _____

By signing this timesheet, you are certifying that it is correct and truthful.

Student's Signature _____ Date ____/____/____

Supervisor Name _____ Phone _____ Date ____/____/____

Supervisor's Signature _____

Attention Worksite Supervisor:
If you have any questions or concerns, please contact: _____ CTE Teacher _____ Phone

Syracuse City School District

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SCSD CTE Internship Student Evaluation

(Form #9)

Name _____ CTE Program _____

Dates of Internship _____ / _____ / _____ — _____ / _____ / _____ Year to Graduate _____

Please complete this form upon completion of your internship.

	Strongly Agree	Agree	Indifferent	Disagree	Strongly Disagree
Overall, I had a great experience	☐	☐	☐	☐	☐
I was actively involved in the team meetings and felt free to express my thoughts and opinions	☐	☐	☐	☐	☐
My mentors encouraged and responded to my questions	☐	☐	☐	☐	☐
I have an increased appreciation for teamwork	☐	☐	☐	☐	☐
I have a greater ability to ask good questions and synthesize information	☐	☐	☐	☐	☐
I was presented with opportunities to learn by doing	☐	☐	☐	☐	☐
I gained factual knowledge about careers throughout the internship	☐	☐	☐	☐	☐
I would recommend this opportunity to others	☐	☐	☐	☐	☐
My time was well spent	☐	☐	☐	☐	☐
I would consider this employer as a future employer	☐	☐	☐	☐	☐
My co-workers are generally positive about work	☐	☐	☐	☐	☐

The best thing about my experience was… _____

_____

The worst thing about my experience was… _____

_____

Any suggestions on how we could improve the intern experience? _____

_____

Other comments… _____

Syracuse City School District

Syracuse City School District
725 Harrison Street, Syracuse, NY 13210

SCSD CTE Internship Mentor Program Evaluation

(Form #10)

Student Name _____ SCSD School _____

Interning Location _____

Supervisor/ Mentor Name _____ Date ____/____/____

Internship Preparation

- ☐ Exceptional
- ☐ Adequate
- ☐ Inadequate

Modes of Communication with SCSD Personnel

- ☐ In-Person
- ☐ Email
- ☐ Phone

Amount of Communication with SCSD Personnel

- ☐ Exceptionally good
- ☐ Appropriate
- ☐ Too much
- ☐ Too little

Suggestions for improvement: _____

Additional comments: _____

Return to CTE teacher: _____
CTE Teacher Email

BOARD OF EDUCATION

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NOTICE OF NON-DISCRIMINATION

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Assistant Superintendent for Student Support Services, Civil Rights Compliance Officer
Syracuse City School District
725 Harrison Street • Syracuse, NY 13210
(315) 435-4131

Email: CivilRightsCompliance@scsd.us

Return to TOC

F. Employability Profile

> *The employability profile is a record of student achievement. That may include documentation of the student's attainment of technical knowledge and work-related skills, endorsements, licenses, clinical experience, work experience, performance on core academic Regent's examinations, performance on industry based assessments, attendance, student leadership honors and achievements and other honors or accolades of student success.*

Process

- An employability profile model is developed for the program
- A profile of student achievement is developed for each student in the program and is maintained in accordance with records and retention policies of the school district/BOCES.
- The profile of student achievement is reviewed and updated on a continuous basis by the student and the appropriate program/guidance personnel.
- The work skills to be mastered by students with disabilities should be aligned with the student's Individualized Education Program (IEP).

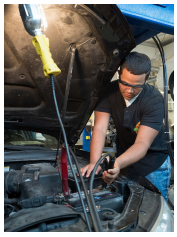
Documentation

Recommendations for the employability profile model should be included in the self-study report and reviewed by the external committee.

Source: http://www.p12.nysed.gov/cte/ctepolicy/guide.html

EMPLOYABILITY PROFILE

Automotive Technology



Industry-Based Skill Standards

Proficiency Definitions

NA = Not Applicable **1 = Introduced** **2 = Developing** **3 = Proficient** **4 = Mastery**

	9th	10th	11th	12th
Shop Safety				
Demonstrates sound safety practices within the shop environment including lift safety, tool safety, personal protective apparel, common safety hazards found in the automotive shop				
Hand and Power Tools				
Demonstrates proper selection and use of both hand and power tools used in the automotive shop environment. Cleans, maintains, and properly stores all tools				
Vehicle Maintenance and Service				
Completes basic vehicle maintenance service such as oil and filter changes, tire pressure, fluid levels, belt tension, and cooling system checks and service				
Automotive Braking Systems				
Demonstrates an understanding of vehicle braking systems, hydraulic and mechanical components, anti-lock braking system components, and wheel bearing replacement				
Drum, Disk, and Ainti-Lock Brake Service				
Performs basic brake service on drum and disc brake systems, services and/or replaces brake rotors and calipers, inspects ABS and TCS components.				
Steeering System				
Inspects and services steering system components including linkages, rack and pinion, tie rod ends, and power steering system components, and uses proper line bleeding techniques				
Suspension System Service				
Performs diagnostics on suspension system, can replace shocks, struts, coil springs, ball joints, control arms, bushings,m strut rods, anmd stabilizer bars for common applications				
Tire Service and Alignments				
Demonstrates an underestanding of tires, rims, and alignment on passenger cars. Can remove and mount tires, balance, and repair punctures using industry accepted equipment				
Using Diagnostic Tools				
Demonstrates appropriate use of vehicle diagnostic equipment and code readers, can use a scan tool to access and program a vehicel computer, can diagnose minor electrical problems				

	9th	10th	11th	12th
General Electrical System Diagnosis and Service				
Performs basic diagnostic tests using multimeter or scan tools to check for parasitic battery loads, battery status, and voltage drops across various system components.				
Diagnosing and Servicing Starting Systems				
Inspects, tests, and diagnoses starting system problems, can replace starter, battery, starter relay or solenoid, starter, ingition switch, and other starting system components				
Diagnosing and Servicing Charging System				
Performs diagnostics on charging system components such as alternators, batteries and connectors, and other system components using appropriate diagnostic tools.				
Diagnosing and Servicing Lighting Systems				
Diagnoses lighting system problems, replaces and aims headlights, replaces turn signals and marker lights, troubleshoots and replaces switches and other basoc lighting controls				
Diagnosing and Servicing Wipers/Washers and Horn System				
Performs basic diagnostic tests on winshield wipers and washer system, can repair and/or replace wipers and washer pump motors, can diagnose and repair horn system				
Diagnosing General Engine Concerns				
Performs basic diagnostic tests using scan tools or OBD code readers to identify engine performance problems and retrieve diagnostic trouble codes				
Diagnosing and Servicing Exhaust System				
Demostrates the ability to inspect and test automotive exhaust systems, replaces exhaust system components to repair exhaust systems in order to meet emission standards				
Diagnosing and Servicing Heating Systems				
Performs basic diagnostic tests on heating system, can repair/replace system components including radiators, hoses, thermostats, and electical or mechanical radiator fans.				
Career Development Portfolio				
Has developed a career development portfolio using appropriate writing skills to create cover letter, resumes, samples of work, and career plan to be used in the job seeking process				

Industry Certifications / Credential / Endorsement	yes	no

Articulated College Credit or Advanced Standing	credits
Total	

EMPLOYABILITY PROFILE

Automotive Technology

Student Name: _____ School Year: _____ Absences: _____

ID Number: _____ Teacher: _____ Final Grade: _____

Career Ready Practices / Career Development Standards

STANDARDS DEFINITIONS

NA = Not Applicable 1 = Developing 2 = Basic 3 = Proficient 4 = Mastery

	9th	10th	11th	12th
Acts as a responsible citizen/employee				
Is on time and prepared, follows workplace policies, demonstrates reliability and dependability, is polite and courteous to adults and peers, demonstrates appreciation, and is reliable and consistent in their actions				
Applies appropriate academic and technical skills				
Demonstrates an understanding of the academic knowledge and skills associated with their trade. Technical skills are developed with academic competencies including English language arts and science that are integrated within the CTE program.				
Attends to personal health and financial well-being				
Recognizes the benefits of physical, mental, social, and financial well-being to the importance of that success in their career. Accepts criticism and works towards self-improvement targets on a consistent basis.				
Communicates clearly, effectively, and with reason.				
Is able to communicate both verbally and in writing to express ideas and obtain information. Uses appropriate vocabulary to share information both verbally and in writing as well. Demonstrates active listening skills and verbal communication.				
Makes appropriate decisions				
Considers the environmental, social, and economic impacts of their decisions. Understands that their actions and decisions will impact other people directly. Works independently and responds positively to new ideas and suggestions.				
Demonstrates creativity and innovative thought				
Demonstrates creativity and new thinking to solve workplace problems as encountered. Is creative, innovative, and is eager to explore new ways of addressing issues and challenges that are encountered.				
Employs valid and reliable research strategies				
Seeks information to develop a deeper understanding of issues encountered. Uses technology as a tool to research, organize, and evaluate information critically incompetently. Interprets information and draws conclusions based on best analysis.				
Uses critical thinking skills and demonstrates perseverance				
Demonstrates problem-solving skills through the use of creative thinking, decision-making, and adaptability. Effectively reasons through difficult situations, and makes decisions even when faced with complex or challenging problems.				

	9th	10th	11th	12th
Models integrity, ethical behavior, and leadership				
Is accountable and transparent in all of their work and assignments. Consistently exhibits ethical behavior, and commitment to completing tasks as assigned. Develops and demonstrates leadership skills, assuming responsibility readily.				
Develops and implements a Career Plan				
Develops a career plan based on understanding of their personal goals and the career pathways that aligns to them. Develops resumes, cover letters, and examples of best work to aid in the job seeking process and/or entrepreneurial goals.				
Uses technology to enhance productivity				
Demonstrates an understanding of the use of technology related to their career pathway. Continually develops their ability to adapt to changing work environments using technology, including new tools and their associated applications.				
Works as a productive and respectful team member				
Actively participates as a member of a team recognizing and appreciating others skills and abilities. Adds to the collective value of the team, and invigorates others to add to the collective efforts and goals.				
Demonstrates reliability and dependability				
Regardless of tasks given, demonstrates reliable and dependable behaviors to meet the expectations as defined. Attendance and levels of participation meet expectations consistently. Take on additional responsibilities without prompting.				
Arrives on time and is prepared to work				
Consistently demonstrates promptness, reliability, and commitment to reporting for classes, work site experiences, and other assignments as defined. Reports prepared for work or education as requirements dictate, meets attendance requirements.				
Demonstrates safe working habits				
When engaging in worksite situations or learning labs, uses tools and equipment safely, observes general safety guidelines for material handling, and meets the expectations of maintaining a safe work environment for others.				
Demonstrates problem solving skills				
Addresses problems encountered using effective problem-solving strategies. Works to define potential solutions to problems, identifies and implements the best solution based on the information gathered and their skill and knowledge.				

Earned Technical Endorsement on Diploma **YES** ☐ NO ☐

Special Recognitions or Scholarships _____

Student Leadership Organization _____

Return to TOC