



CAREER AND TECHNICAL EDUCATION

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Automotive Technology

16/17

CTE is a Division of the WSWHE BOCES

CTE COURSE SYLLABUS

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Automotive Technology



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| Course Description: | A two-year program based on the National Automotive Technician Education Foundation (NATEF) model for Maintenance and Light Repair. The National Automotive Technician Education Foundation evaluates entry-level technician training programs against standards developed by the automotive industry and accredits qualifying programs. | |
| Prerequisites: | People with good diagnostic and problem solving skills, and whose training includes basic electronic skills, should have the best opportunities. | |
| 1 Year/2 Years: | 2 years | |
| Location: | Southern Adirondack Education Center, F. Donald Myers Education Center | |
| Course Objective: | The Automotive Technology program is designed to graduate entry-level technicians with a broad skill set, a solid foundation in electrical/electronics, and general understanding of all automotive systems. | |
| Course Topic Outline: | Introduction and Orientation Introduction to Auto Shop and Personal Safety Tools and Equipment Looking for Information Preparing Vehicle for Service Preparing Vehicle for Customer Basic Service Engine Repair Automatic Transmission Manual Drive Train and Axles Suspension and Steering Brakes Electrical/Electronic Systems Heating and Air Conditioning Engine Performance English Language Arts Mathematics Science | Electrical/Tolerances NYS Motor Vehicle and Motorcycle Inspection Portfolio Work-Based Learning Developing an Employment Plan Seeking/Applying for Employment Opportunities Accepting Employment Communicating on the Job Interpreting the Economics of Work Maintaining Professionalism Adapting/Coping with Change Solving Problems and Critical Thinking Maintaining a Safe and Healthy Environment Demonstrating Work Ethics and Behavior Demonstrating Technology Literacy Maintaining Interpersonal Relationships Demonstrating Teamwork Demonstrating Financial Literacy |
| Student Requirements: | Students are expected to: complete Task Sheets For Assigned Jobs, complete all tests – quizzes, unit tests, final exam, notebook, homework and wear appropriate attire. | |
| Requirements: | | |
| Textbooks/ | CDX Light Vehicle, 2013 NATEF Edition; Erjavec, Jack, Teacher Resource Materials | |
| Materials Resources: | (PowerPoint presentations, transparencies), Test Generation Software, Various supporting video tapes; Valvoline Oil Certification; ALLDATA Repair Manuals; Mitchell ProDemand Service Manuals. | |
| Assessments/ | Automotive Service Excellence (ASE) - ASE Student Certification in Maintenance and Light Repair, | |
| Technical Assessments: | Student Portfolio. | |

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| Grading System: | Quizzes 15% Projects 40% In-Class Assignments 20% Tests 20% Homework/Journal 5% |
| Attendance & Class Participation: | The WSWHE BOCES has an attendance policy that requires students to miss no more than 18 days across the school year. For those times when it is necessary to be absent, a written note from the parent/guardian will be expected the next class day. Additionally, all absences will be made up by completing a teacher assigned automotive related report following the absence. If the absence is not made up the student will receive a zero for the absence. |
| Activities/Labs/Projects/Clinics: | <p><i>Students will complete CDX task sheets in the following areas:</i></p> <ul style="list-style-type: none">Introduction to Auto Shop and Personal SafetyTools and EquipmentLooking for InformationPreparing Vehicle for ServicePreparing Vehicle for CustomerBasic ServiceEngine RepairAutomatic TransmissionManual Drive Train and AxlesSuspension and SteeringBrakesElectrical/Electronic SystemsHeating and Air ConditioningEngine PerformanceNew York State Vehicle Inspection <p>Students that meet the Work-Based Learning requirements (page 4) will perform a 2-week internship at an automotive related job site in both year one and two of the program. Students must also complete a portfolio to include resume, cover letter, letters of reference, letters of application, samples of task sheets and written assignments, awards, etc.</p> <p>Students will be allowed to perform clinic work on customer vehicles once they have been properly trained and have completed the corresponding task sheet(s).</p> |
| Student Provided Material List: | Notebook, Work Boots, Uniform |
| Industry Certification: | National Institute for Automotive Service Excellence (ASE) Students will also be prepared to take the test for NYS Department of Motor Vehicle Inspector Certification |
| Articulation Agreements: | <p>Each Career and Technical Education (CTE) program is geared to ready students for the world of work and/or for the rigors of post-secondary coursework. To that end, each program has worked with area colleges to obtain articulation agreements that allow for advance standing or the issuance of credit to those CTE students meeting all program requirements and articulation agreement standards. The colleges WSWHE BOCES has an articulation agreement with are:</p> <ul style="list-style-type: none">› Alfred State College› Fulton-Montgomery Community College› Lincoln Institute of Technology› Morrisville State College› Universal Technical Institute› University of Northwestern Ohio |

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| Related Careers/ Post-Secondary Training: | Automotive Machinist, Parts Person, Salesperson, Equipment Sales, Service Management |
| ELA/Math Credit Integrated Academic Overview: | <p>Each Career and Technical Education (CTE) program offered at the WSWHE BOCES has five (5) major curriculum elements that students will acquire over a one year or two year period. Two (2) of the five (5) curriculum elements include English Language Arts and Mathematics. These program elements are taught using a co-teaching model, which teams the CTE subject experts and certified English and Math instructors. Topics in English and Math are tied to specific business and industry course content, which illustrates to students how academic material and business knowledge and skill relate to one another. English and Math elements are taught at the commencement level and meet NYS Standards for students to obtain one (1) credit for each over a two-year period. Program specifics are as follows:</p> <p>Commencement Level Math 54 hours/yr English Language Arts 54 hours/yr 1 credit = 108 hours</p> |
| Career & Financial Management Credit Overview | Each Career and Technical Education (CTE) program offered at the WSWHE BOCES offers a Career & Financial Management credit to all students who successfully complete a CTE program. This curriculum element is comprised of two major parts; (A) Introduction to Occupations and (B) Nature of Industry. Part A is delivered through integrated class assignments, while Part B is automatically delivered due to the nature of CTE. |
| Student Affiliated Organization: | SkillsUSA |
| National Technical Honor Society (NTHS) Nominations Requirements: | <ul style="list-style-type: none"> › Maintain a cumulative CTE average of 92% or higher based upon 1st & 2nd quarter grades. › Maintain a record of excellent attendance in CTE (9 days per year). › Plan to pursue a career in their field of training. › Maintain an outstanding record of employability skills as judged by the CTE instructor. › Nomination by the CTE instructor with no reservations. › Instructor nomination must include a yes answer to the following characteristics established by the national office: follows instructions, safety conscious, works well with others, is dependable, trustworthy, responsible, honest, takes pride in work, exhibits a good attitude, exhibits leadership, exhibits good citizenship. |
| WBL Experiences/ Requirements: | Each Career and Technical Education (CTE) program has a Work-Based Learning experience more commonly referred to as an internship. This means that all students prior to the end of the second year are given the opportunity to be exposed to the operation of a business and specific job duties related to careers in their CTE area. This internship is designed to connect the skills and knowledge learned in the CTE classroom with the real world requirements of a business. Students must demonstrate good attendance, attitude, internship records, and work ethics, as well as respect for others and property. |

The Washington-Saratoga-Warren-Hamilton-Essex BOCES does not discriminate in its employment and admission to programs and activities as applicable, on the basis of actual or perceived race, color, creed, sex, sexual orientation, national origin, religion, age, economic status, marital status, veterans' status, political affiliation, domestic victim status, use of a guide dog, hearing dog or service dog, disability, or other classifications protected under federal or state law, and provides equal access to the Boy Scouts and other designated youth groups. The designated district compliance officers will coordinate compliance with the nondiscrimination requirements of Title VI and Title VII of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Age Discrimination Act of 1975, the Americans with Disabilities Act of 1990, as amended, the Boy Scouts of America Equal Access Act, and the New York State Human Rights Law. The BOCES Compliance Officers are: Donna J. Wisenburn, Director of Human Resource Services or Timothy G. Place, Deputy District Superintendent, Washington-Saratoga-Warren-Hamilton-Essex BOCES, 1153 Burgoyne Avenue, Suite 2, Fort Edward, NY 12828, phone (518) 581-3310 or 746-3310. Complaints may also be filed with the Office for Civil Rights, New York Office, U.S. Department of Education, 32 Old Slip, 26th Floor, New York, NY 10005-2500, phone (646) 428-3800, fax (646) 428-3843, email: OCR.NewYork@ed.gov.