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The Automotive Technology Program

CIP 47.0604

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READING MUHLENBERG CAREER & TECHNOLOGY CENTER

MISSION STATEMENT

The Reading Muhlenberg Career & Technology Center, in partnership with our diverse community, sponsoring districts, and business and industry, is committed to providing quality career and technical education, resulting in opportunities for students to gain employment, pursue post-secondary education, and develop an appreciation for lifelong learning.

VISION STATEMENT

To empower Reading Muhlenberg Career & Technology Center students with the technical knowledge and skills to confidently pursue a career.

BELIEFS

- We believe in valuing the diversity of each student
- We believe education leads to opportunity
- We believe quality education starts with quality leadership
- We believe a career and technical education is a critical component of workforce development
- We believe technology is vital to learning and will help students connect with a rapidly changing world
- We believe technology must be embraced by teachers as a tool to help prepare students to meet current and future labor market demands
- We believe in providing all students with a positive educational experience
- We believe students should feel proud of what they have accomplished each day
- We believe students will be provided the opportunity to achieve their highest potential
- We believe students will be provided the opportunity to acquire and cultivate leadership skills
- We believe in providing students with a safe school environment
- We believe the success of a student is enhanced by parents and/or other influential adults through their support and involvement
- We believe in encouraging students to maintain a lifelong affiliation with the school
- We believe change is an ongoing process, not an event, and is fundamental for building quality programs of study
- We believe instruction must accommodate individual student learning styles



Automotive Technology

- Develop the skills necessary to perform proper hands-on vehicle repair.
- Expand your career options by earning your PA State Safety & Emissions Inspection certifications.
- Maintain, diagnose, analyze, and repair basic-toadvanced automotive systems.
- Learn the 3 "C's" complaint, cause, and correction used in the automotive repair industry.
- Perform a wide variety of hands-on repairs and experience the "live" automotive repair industry environment.



Student Certifications

NOCTI – National Occupational Competency Testing Institute Certification

* Automotive Technician - Core

Pennsylvania State Safety Inspector Certification, Cat I Pennsylvania State Safety Inspector Certification, Cat III

Pennsylvania State Emissions Inspector Certification OSHA Fire Extinguisher Certification

Valvoline Motor Oil Specialist Certification S/P2

Section 609 Certification for Refrigerant Recycling and Recovery

Accreditations

NATEF – National Automotive Technicians Education Foundation



Job Titles – Career Pathways

| 41-2022 | Parts Salespersons |
|---------|-------------------------------------|
| 49-2096 | Electronic Equipment Installers and |
| | Repairers, Motor Vehicles |
| 49-3023 | Automotive Service Technicians and |
| | Mechanics |
| 49-3093 | Tire Repairers and Changers |
| 53-6051 | Transportation Inspectors |
| 53-7061 | Cleaners of Vehicles and Equipment |
| LOCAL | Lube Technician |
| LOCAL | Alignment / Suspension Technician |
| LOCAL | Brake Technician |

CTC knowledge transfers to college credits at:

Commonwealth Technical Institute Community College of Allegheny County Community College of Philadelphia Delaware County Community College Harrisburg Area Community College Johnson College Lincoln Technical Institute Luzerne County Community College Northampton Community College Pennsylvania College of Technology Rosedale Technical College Thaddeus Stevens College of Technology Universal Technical Institute (UTI)



Instructor – Mr. Samuel M. Morraco Jr.

Biography

I am a lifelong resident of Reading, PA, and began my career as an automotive technician during my senior year of high school in 1987.

My time spent working in the automotive industry has taken me down numerous paths in life. Some of them were very challenging, but all were rewarding.

It only seems fitting now that I take what I have learned and pass it on to today's youth, especially in the town that raised me.

Education

Associate's Degree, Thaddeus Stevens College of Technology Bachelor of Science, Alvernia College Vocational Teaching Certification, Level I and Level II, Temple University PA Safety Vehicle Inspector Instructors' Training Program

PA Emission Vehicle Inspector Instructors' Training Program

Certifications and Awards

MACS–Mobile Air Conditioning Society (EPA Section 609 Certification for Refrigerant Recycling & Recovery) Automotive Service of Excellence (A.S.E.) – Maintenance and Light Repair (G-1)

Work Experience

My experience incorporates a thorough understanding via intense training in all of the systems of a vehicle. I have practiced these skills at dealerships.

Hire Date 2004



Program Planning Tool



Student Name:

This document has been designed as a tool to facilitate student placement decisions and provides important information about the program. The chart on the reverse side is designed to assist in the identification of necessary skills, present educational levels, and supports, if any, that are needed to foster program success.

Program Completion Requirements

A successful student will...

- Secondary Academic Course Requirements: The PA Dept. of Education's focus is to ensure every student is college and career ready, therefore all students are recommended to follow a college prep sequence of academic classes. Courses such as applied math or general science are not appropriate for this program. PDE's goal is to have all students perform at the competent or advanced level on the Keystone Exams and Program of Study end-of-program assessment (NOCTI).
- Complete an Occupational Competency Assessment (i.e. NOCTI end-of -program exam) and score at the "competent" or "advanced" level. This end-of -program exam will cover the full scope of the program of study curriculum and includes (1) multiple choice test (2) performance test consisting of occupational related tasks scored & evaluated by industry judges.
- Earn a minimum of one industry recognized certification. Students will be encouraged and expected to earn all recognized industry certifications that make up the scope of the curriculum. Accommodations are not permitted for industry certifications. These include: 1. PA Safety Inspection 2. PA Emissions Inspection 3.OSHA Fire Extinguisher 4. Valvoline Motor Oil Specialist 5. S/P2 6. Section 609 Certification for Refrigerant Recycling and Recovery
- Complete the approved program curriculum and earn a minimum of one RMCTC Job Title aligned with the student's career objective. Job titles are identified on the program task list, aligned with local workforce needs and high priority employment occupations, and annually reviewed and approved by the program's occupational advisory committee.
- Successful completion of Keystone Exams as determined by sending school district.
- Maintain a 95% attendance rate or better.
- Transition on to a post-secondary institution, military or related fulltime employment aligned to their CTC program of study.

Instructional Process/Specifications

A successful student will...

- Perform a wide variety of tasks in a laboratory environment with equipment consistent with industry standards. Up to 25 students are assigned to work "independently" and in "small teams". Students progress through using learning guides in a self-directed manner. Working in the laboratory, students will be required to use hand tools, power tools, measuring instruments, hydraulic lifts, welding equipment, chemicals, heavy equipment, and cutting tools. Students must be alert and aware of the surroundings at all times as vehicles move in and out of the laboratory. This requires self-discipline and strict adherence to rules to ensure safety of self and others.
- Participate in classroom theory and laboratory applications for generally 2 ½ hours each day; students will spend 35% of their time in classroom theory and 65% of their time doing laboratory applications and live work.
- Complete written and performance tests. Students will be evaluated weekly on occupational skill performance using rubrics. In addition, students will be evaluated daily on work ethics. Progress is measured by test performance, task completion and work ethic.
- Read and study textbooks and technical manuals. Most textbooks are written at a 10th to 11th grade reading level (most technical manuals are written at a higher level).
- Participate in Career & Technical Student Organizations including SkillsUSA and/or National Technical Honor Society.
- Participate in a paid or unpaid work based learning related to the Program of Study (cooperative education, clinical internship, and/or job shadowing).
- Complete homework on time. Homework typically involves chapter or workbook assignments, on line research assignments and writing assignments.
- Purchase appropriate work and safety attire, tools, and equipment. Following is an estimated breakdown of costs:
 - UNIFORM: \$100

Program Planning Tool



| CTE Requirements | Present Educational Ability/Level | Support Needs |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|---------------|
| Program Completion – Strong self-determination skills and understanding of personal strengths and weaknesses. Ability to meet industry established standards of performance, complete the program of study without curriculum modifications, and earn industry certifications without testing accommodations. | | |
| Reading and Language Arts Level - Text and manuals written on a 10 th -11 th grade reading level. Proficient on end-of-course exam (Keystone). Must have ability to read and comprehend technical content; interpret schematics. Certification exams require reading, writing & comprehension of English. Good oral and written communications. NOCTI assessment and Industry certification exams require a proficiency in English language skills | | |
| Math Level - At grade level and proficient on end-of-course exam (Keystone). Knowledge of arithmetic, algebra, geometry and their applications. Must have ability to apply weights and measures, metric system, fractions, decimals and percentages. | | |
| Aptitude – Problem solving/diagnostic skills; aptitude for mechanical, electrical, electronic, computer technology, technical drawings and diagrams. ability to diagnose the source of a problem quickly and accurately. | | |
| Safety & Physical - Manual dexterity; fine motor skills; hand-eye-body coordination; frequent standing bending and lifting required; high degree of self-control and focus needed for safety around moving equipment, hand tools, power tools and other equipment found in the industry; ability to work in tight spaces; ability to work independently, read and follow directions; stamina to stand for long periods of time. Ability to lift 50 lbs. | | |
| Interpersonal/ Social - Ability to relate well to customers and coworkers; ability to work independently and as a team member; self-discipline a must due to safety issues; listening to what people are saying and understanding the points being made. | | |
| Other Program/Occupational Considerations - Ability to work independently read and follow directions. Strong attention to detail. Stamina to stand for long periods of time. Excellent hand/eye coordination and attention to detail. Environment with several sensory inputs, including loud and sometime startling noises, dusts and fumes, ongoing background noise, moving people and vehicles. | | |



Scope and Sequence Automotive Technology 47.0604

<u>Academic Subjects</u> – Career success and postsecondary education success require the same level of college prep coursework. The Pennsylvania Department of Education's (PDE) focus is to ensure that every student is prepared for college and a career. Academic courses such as applied math or general science <u>cannot</u> be listed on the program's scope and sequence. PDE's goal is to have all students perform at the competent or advanced level on the PSSA, and earn the Pennsylvania Skills Certificate on the end-of-program assessment.

| | | Postsecondary Institution | | | | | | |
|------------------------------------|-------------------------------|----------------------------------|----------------------------|-----------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------------------|-------------------------------------------------------|----------------------------------------------------------|
| Subject (Hours) | Grade 9 (Hours) | Grade 10 (Hours) | Grade 11 (Hours) | Grade12 (Hours) | First Semester | Second Semester | Third Semester | Fourth Semester |
| Technical | Orientation | Engine | Electrical Systems | AMT 111: Manual Transmission & Transaxle Principles | AMT 122: Engine Principles | AMT 235: Engine Service | AMT 241: Automotive Chassis Service | |
| | | Tools/Fasteners | Cooling System | Drive Trains and Axle Systems | AMT 112: Brake Principles | AMT 123: Basic Fuel & Emission Control Systems | AMT 239: Engine Repair & Overhaul | AMT 242: Vehicle Safety Inspection |
| | | General Reconditioning | Fuel Systems (Gasoline) | HVAC Systems | AMT 113: Steering and Suspension | AMT 124: Automotive Electrical/Electroni c Principle | AMT 263: Electronic Power train Systems Service | AMT 274: Automotive Air Conditioning Systems & Ser |
| | | Welding/Cutting | Ignition System | Certification | AMT 119: Fundamentals of Automatic Transmissions | AMT 126: Engine Electrical Systems | | AMT 276: Electrical/Electronic Accessory Service |
| | | Brake Systems | Intake & Exhaust | Job Seeking/Keeping Skills | | | | |
| | | Suspension & Steering | Emissions | | | | | |
| | Job Seeking/Keeping Skills | Job Seeking/Keeping Skills | | | | | | |
| English | College Prep English 9 | College Prep English 10 | College Prep English 11 | College Prep English 12 | | ENL 111: English Comp 1 | ENL 201: Technical & Professional Communication | |
| Math Algebra I | Geometry | Algebra II | Trigonometry | MTH 124: Technical Algebra & Trig | | | | |
| | | | | | MTH 180: College Algebra and Trig I | | | |
| Science Accl Integrated Science | | Biology | Chemistry | | | | | PHS 103: Physics Survey |
| | | | | | | | | PHS 114: Physics w/Technological Applications |
| Humanities | Citizenship | World Cultures | American History I | American Government | | | _HUM:Elective:H UM/SSE/ART/FO R/AAE | Humanities |
| Other | Physical Education | Physical Education | Physical Education | Physical Education | | FIT: Elective: Fitness | | |
| | Health | Health | Driver's Ed Theory | | | | | |

47.0604 Automobile/Automotive Mechanics Technology/Technician Level 1

- 101 Explain and follow all lab rules.
- 102 Participate in basic shop management.
- 103 Participate in parts ordering.
- 104 Demonstrate auto shop safety and hygiene.
- 105 Demonstrate the use of service information.
- 106 Demonstrate proper telephone courtesy.
- 107 Identify vehicle by: sight, V.I.N. and/or ID tag.
- 108 Identify career paths within the career and technical education program.
- 109 Complete work order to include customer information, vehicle identifying information, customer concern, related service history, cause, and correction.
- 110 Research applicable vehicle and service information, vehicle service history, service precautions, and technical service bulletins.
- 111 Locate and interpret vehicle and major component identification numbers.
- 201 Identify and follow all safety rules.
- 202 Demonstrate the ability to secure vehicles on jack stands and hydraulic lifts.
- 203 Demonstrate the ability to safely set-up/shut-down oxygen acetylene welding equipment.
- 204 Identify chemical safety, "Right-To-Know Laws" and Safety Data Sheets (SDS).
- 205 Identify and demonstrate the safe use of hand tools.
- 206 Identify and demonstrate the safe use of power tools.
- 207 Identify and demonstrate the safe use of protective clothing and equipment.
- 208 Identify and demonstrate the safe use of fire protection equipment.
- 209 Identify and demonstrate the safe use of shop equipment.
- 210 Explain EPA and OSHA Regulations.
- 301 Identify and use fasteners and bolts.
- 302 Demonstrate the ability to correctly drill and use re-threading tools.
- 303 Demonstrate the ability to correctly read and interpret precision automotive measuring tools.
- 304 Demonstrate the ability to correctly use automotive tools. Perform common fastener and thread repairs, to include: remove
- 305 broken bolt, restore internal and external threads, and repair internal threads with a threaded insert.
- 401.11 List & label the general areas of a vehcile.
- 403 11 Locate and describe basic information on a VECI (Vehicle
- Emissions Control Information) label.
- 502.11 Locate and describe basic suspension system components.
- 502.12 Locate and describe basic steering system components.
- 509.11 Identify & select cooling system fluid properly.
- 529.11 Identify & select cooling system fluid properly.
- 544 Inspect tire and wheel assembly for air loss; perform necessary action.

- 602.11 List & name major brake system components.
- 602.12 Identify & describe basic brake system operation.
- 605.11 Locate & describe basic brake pedal operation.
- 606.11 Locate & describe the basic principles of a master cylinder.
- 607 Remove, bench bleed, and reinstall master cylinder.
- 608.11 Locate & describe the basic purpose of the brake lines and brake hoses.
- 611 Select, handle, store, and fill brake fluids to proper level.
- 611.11 Define the different types of brake fluid.
- Identify & select brake fluid properly.
- 611.12
 - Identify & describe basic brake stop lamp operation.
- 603.11
- 702.11 Define the basic concepts of an electrical system.
- 702.12 Define the basic concepts of an electronic system.
- 719.11 Locate & describe the basic purpose of an automotive battery
- 721.11 List & describe the steps to start a vehcile with jumper cables.
- 723.11 Locate & describe the basic purpose of an automotive starter.
- 729.11 Locate & describe the basic purpose of an automotive alternator.
- 735.11 Locate & name the basic parts of a headlight system.
- 735.12 Identify & explain basic headlight operation.
- Remove and reinstall door panel.
- 831.11 Locate and name the basic components of an exhaust system.
- 831.12 Identify & explain basic exhaust system operation.
- 846 Perform engine oil and filter change.
- 902.11 Locate & name the instrument panel warning lamps.
- 902.12 Identify & describe the purpose for instrument panel warning lamps.
- 907.11 Locate & describe the purpose of the cooling system.
- Identify & select cooling system fluid properly.
- 907.12
- 1002 Check fluid level and fluid condition in a transmission or a transaxle equipped with a dip-stick.
- 1003 Check fluid level and fluid condition in a transmission or a transaxle not equipped with a dip-stick.
- 1004.11 Identify & select automatic transmission fluid properly.
- 1005 Identify drivetrain components and configuration.
- 1007 Inspect for leakage at external seals, gaskets and bushings.
- 1100.11 Locate and name the basic components of a manual drive train and axle system.
- 1102.11 Identify & select manual transmission fluid properly.
- 1103.11 Identify & select clutch master cylinder fluid properly.
- 1105.11 Identify & select differential fluid properly.
- Locate & describe the purpose of the air conditioning system.
- 1200.12 Locate & describe the purpose of the heating system.

47.0604 Automobile/Automotive Mechanics Technology/Technician Level 2

Identify and interpret suspension and steering system concerns; determine necessary action. 502

- 509 Determine proper power steering fluid type; inspect fluid level and condition.
- 517 Inspect, replace, and adjust tie rod ends (sockets), tie rod sleeves, and clamps.
- Lubricate suspension and steering systems. 529
- erform pre-alignment inspection and measure vehicle ride height; perform necessary action. 530
- 531 Prepare vehicle for wheel alignment on the alignment machine; describe alignment angles and perform four wheel alignment by checking and adjusting front and rear wheel caster, camber; and toe as required; center steering wheel.
- Check front and/or rear cradle (subframe) alignment: determine necessary action 535
- Inspect tire condition; identify tire wear patterns; check and adjust air pressure; determine 536 necessary action.
- 537 Diagnose wheel/tire vibration, shimmy, and noise; determine necessary action.
- Rotate tires according to manufacturer's recommendations 538
- 539 Measure wheel, tire, axle flange, and hub runout; determine necessary action.
- Dismount, inspect, and remount tire on wheel; balance wheel and tire assembly (static and 541 dynamic).
- Dismount, inspect, and remount tire on wheel equipped with tire pressure monitoring system 542 sensor.
- 545 Repair tire using internal patch.
- 546 Identify indirect and direct tire pressure monitoring systems (TPMS) calibrate system; verify operation of instrument panel lamps
- 547 Demonstrate knowledge of steps required to remove and replace sensors in a tire pressure monitoring system (TPMS) including relearn procedure.
- Identify and interpret brake system concern; determine necessary action 602
- Check master cylinder for internal/external leaks and proper operation; determine necessary 606 action
- Inspect brake lines, flexible hoses, and fittings for leaks, dents, kinks, rust, cracks, bulging or 608 wear; tighten loose fittings and supports; determine necessary action.
- 613 Bleed and/or flush brake system.
- 615 Remove, clean, inspect, and measure brake drums; determine necessary action.
- 616 Refinish brake drum; measure final drum diameter.
- Remove, clean, and inspect brake shoes, springs, pins, clips, levers, adjusters/self-adjusters, 617 other related brake hardware, and backing support plates; lubricate and reassemble.
- Inspect and install wheel cylinders. 618
- Pre-adjust brake shoes and parking brake; install brake drums or drum/hub assemblies and 619 wheel bearings.
- 620 Install wheel, torque lug nuts, and make final checks and adjustments.
- Remove caliper assembly; inspect for leaks and damage to caliper housing; determine 622 necessary action.
- Clean and inspect caliper mounting and slides/pins for operation, wear, and damage; determine 623 necessary action.
- Reassemble, lubricate, and reinstall caliper, pads, and related hardware; seat pads, and inspect 624 for leaks.
- Clean, inspect, and measure rotor thickness, lateral runout, and thickness variation; determine 625 necessary action.
- Remove and reinstall rotor. 626
- 627 Refinish rotor on vehicle; measure final rotor thickness.
- Refinish rotor off vehicle; measure final rotor thickness.
- 628
- Check brake pad wear indicator system operation; determine necessary action. 630
- 632 Check vacuum supply to vacuum-type power booster and check power assist operation.
- Remove, clean, inspect, repack, and install wheel bearings, RACES and replace seals; install 633 hub and adjust bearings.
- 634 Check parking brake cables and components including integral parking brake system for wear, binding, and corrosion; clean, lubricate, adjust or replace as needed. Check parking brake and indicator light system operation; determine necessary action.
- 635
- 638 Inspect and replace wheel studs.
- Remove and reinstall sealed wheel bearing assembly. 639
- 643 Bleed the electronic brake control system hydraulic circuits.
- 644 Identify traction control/vehicle stability control system components.
- 645 Describe the operation of a regenerative braking system.

- Use wiring diagrams during diagnosis of electrical circuit problems. 705
- 706 Check electrical circuits with a test light; determine necessary action.
- 707 Check electrical circuits using fused jumper wires; determine necessary action.
- 708 Demonstrate knowledge and locate shorts, grounds, opens, and resistance problems in electrical/electronic circuits; determine necessary action.
- Measure and diagnose the cause(s) of excessive parasitic draw; determine necessary 709 action.
- Inspect and test fusible links, circuit breakers, and fuses; determine necessary action. 710
- Inspect and test switches, connectors, relays, solenoid solid state devices, and wires of 711 electrical/electronic circuits; perform necessary action.
- Remove and replace terminal end from connector; replace connectors and terminal ends. 712
- Perform battery state-of-charge test; determine necessary action. 716
- Perform battery capacity test; confirm proper battery capacity for vehicle application; 717
- determine necessary action. 718 Maintain or restore electronic memory functions.
- Inspect, clean, fill, and/or replace battery, battery cables, connectors, clamps, and hold-719 downs
- Perform battery charge 720
- 721 Start a vehicle using jumper cables or an auxiliary power supply.
- 723 Perform starter current draw tests: determine necessary action.
- 724 Perform starter circuit voltage drop tests; determine necessary action.
- Inspect and test starter relays and solenoids; determine necessary action. 725 Remove and install starter in a vehicle. 726
- Inspect and test switches, connectors, and wires of starter control circuits; perform 727 necessary action.
- 732 Remove, inspect, and install generator (alternator).
- 735 Inspect, replace, and aim headlights and bulbs.
- 747 Demonstrate proper use use of a digital multimeter (DMM).
- Identify and interpret engine performance concern; determine necessary action. 802
- 805 Identify components and inspect engine assembly for fuel, oil, coolant, and other leaks, determine necessary action.
- 806 Diagnose abnormal engine noise or vibration concerns; determine necessary action
- 807 Diagnose abnormal exhaust color, odor, and sound; determine necessary action.
 - Perform engine absolute (vacuum/boost) manifold pressure tests; determine necessary 808 action.
 - 809 Perform cylinder power balance test: determine necessary action.
 - 810 Perform cylinder cranking and running compression tests: determine necessary action.
 - Perform cylinder leakage test; determine necessary action. 811
 - 812 Diagnose engine mechanical, electrical, electronic, fuel, and ignition concerns; determine necessary action
 - 813 Verify engine operating temperature; determine necessary action.
 - Perform cooling system pressure tests; check coolant condition; inspect and test radiator, 814 pressure cap, coolant recovery tank, and hoses; perform necessary action.
 - Retrieve and record diagnostic trouble codes, OBD monitor status, and freeze frame data; 816 clear codes when applicable.
 - Access and use service information to perform step-by-step diagnosis. 818
 - Perform active tests of actuators using a scan tool; determine necessary action. 819
 - Describe the importance of running all OBDII monitors for repair verification. 820
 - 826 Inspect and test fuel pumps and pump control systems for pressure, regulation, and volume; perform necessary action.
 - 828
 - Inspect throttle body, air induction system, intake manifold and gaskets for vacuum leaks and/or unmetered air.
 - 829 Inspect and test fuel injectors.

Replace fuel filters.

827

- Verify idle control operation. 830
- Inspect the integrity of the exhaust manifold, exhaust pipes, muffler(s), catalytic 831 converter(s), resonator(s), tail pipe(s), and heat shield(s); perform necessary action.
- Interpret diagnostic trouble codes (DTCs) and scan tool data related to the emissions 842 control systems; determine necessary action.
- 843 Remove and replace timing belt; verify correct camshaft timing.
- 844 Remove and replace thermostat and gasket/seal.
- 903 Install engine covers using gaskets, seals, and sealers as required.
- 905 Adjust valves (mechanical or hydraulic lifters).
- Inspect, replace, and adjust drive belts, tensioners, and pulleys; check pulley and belt 906 alignment.
- Inspect and test coolant: drain and recover coolant: flush and refill cooling system with 907 recommended coolant; bleed air as required.
- 1104 Check for system leaks.
- 1105 Check and adjust differential housing fluid level.
- 1106 Drain and refill differential housing.
- 1107 Identify and inspect and/or replace manual drivetrain and axle components and configuration

47.0604 Automobile/Automotive Mechanics Technology/Technician Level 3

- 401 Prepare to obtain PA Safety Inspection Certification.
- 402 Prepare to obtain EPA 609 Refrigerant Recovery, Recycling Certification.
- 403 Prepare to obtain Emission Inspection Certification.
- 507 Remove and replace rack and pinion steering gear; inspect mounting bushings and brackets.
- 508 Inspect rack and pinion steering gear inner tie rod ends (sockets) and bellows boots.
- 510 Flush, fill, and bleed power steering system.
- 511 Diagnose power steering fluid leakage; determine necessary action.
- 513 Remove and reinstall power steering pump.
- 514 Remove and reinstall press fit power steering pump pulley; check pulley and belt alignment.
- 515 Inspect and replace power steering hoses and fittings.
- 516 Inspect and replace pitman arm, relay (centerlink/intermediate) rod, idler arm and mountings, and steering linkage damper.
- 519 Inspect, and/or replace upper and lower control arms, bushings, shafts, and rebound bumpers.
- 520 Inspect and /or replace strut rods and bushings.
- 521 Inspect, and /or replace upper and/or lower ball joints.
- 522 Inspect, and/or replace steering knuckle assemblies.
- 523 Inspect, and /or replace short and long arm suspension system coil springs and spring insulators.
- 524 Inspect, and /or replace, and adjust suspension system torsion bars; inspect mounts.
- 525 Inspect, and /or replace stabilizer bar bushings, brackets, and links.
- 526 Inspect, and /or replace strut cartridge or assembly, strut coil spring, insulators (silencers), and upper strut bearing mount.
- 527 Inspect, remove, and replace shock absorbers.
- 540 Diagnose tire pull problems; determine necessary action.
- 605 Measure brake pedal height, travel, and free play (as applicable); determine necessary action.
- 609 Replace brake lines, hoses, fittings, and supports.
- 610 Fabricate brake lines using proper material and flaring procedures (double flare and ISO types).
- 612 Inspect, test, and/or replace components of brake warning light system.
- 614 Diagnose poor stopping, noise, vibration, pulling, grabbing, dragging or pedal pulsation concerns; determine necessary action.
- 636 Check operation of brake stop light system; determine necessary action.
- 640 Identify and inspect electronic brake control system components; determine necessary action.
- 641 Diagnose electronic brake control system electronic control(s) and components by retrieving diagnostic trouble codes, and/or using recommended test equipment; determine necessary action.
- 702 Identify and interpret electrical/electronic system concern; determine necessary action.
- 713 Repair wiring harness and/or solder (including CAN/BUS systems). solder Repair
- 715 Identify location of hybrid vehicle high voltage circuit disconnect (service plug) location and safety procedures.
- 722 Identify electronic modules, security systems, radios, and other accessories that require reinitialization or code entry following battery disconnect.
- 728 Differentiate between electrical and engine mechanical problems that cause a slow-crank or no-crank condition.
- 729 Perform charging system output test; determine necessary action.
- 730 Diagnose charging system for the cause of undercharge, no-charge, and overcharge conditions.
- 739 Diagnose the cause of incorrect operation of warning devices and other driver information systems.
- 740 Diagnose incorrect horn operation; perform necessary action.
- 741 Diagnose incorrect wiper operation; diagnose wiper speed control and park problems; perform necessary action.
- 742 Diagnose incorrect washer operation; perform necessary action.
- 743 Diagnose incorrect operation of motor-driven accessory circuits; determine necessary action.
- B17 Diagnose the causes of emissions or drivability concerns with stored or active diagnostic trouble codes; obtain, graph, and interpret scan tool data.
- 822 Inspect and test ignition primary and secondary circuit wiring and solid state components; test ignition coil(s); perform necessary action.
- 823 Inspect and test crankshaft and camshaft position sensor(s); perform necessary action.
- 824 Inspect, test, and/or replace ignition control module, powertrain/engine control module; reprogram as necessary.
- 825 Diagnose hot or cold no-starting, hard starting, poor drivability, incorrect idle speed, poor idle, flooding, hesitation, surging, engine misfire, power loss, stalling, poor mileage, dieseling, and emissions problems; determine necessary action.
- 833 Inspect, test and service positive crankcase ventilation (PCV) filter/breather cap, valve, tubes, orifices, and hoses; perform necessary action.
- 835 Inspect, test, service and replace components of the EGR system, including electrical/electronic sensors, controls, and wiring, EGR tubing, exhaust passages, vacuum/pressure controls, filters and hoses; perform necessary action.
- 837 Inspect and test mechanical components of secondary air injection systems; perform necessary action.
- 838 Inspect and test electrical/electronically-operated components and circuits of air injection systems; perform necessary action.
- 839 Inspect and test catalytic converter efficiency.
- 841 Inspect and test components and hoses of the evaporative emissions control system; perform necessary action.
- 845 Inspect and test mechanical/electrical fans, fan clutch, fan shroud/ducting, air dams, and fan control devices; perform necessary action.
- 902 Verify operation of the instrument panel engine warning indicators.
- 1004 Drain and replace fluid and filter(s).
- 1006 Inspect, adjust, and/or replace external manual valve shift linkage, transmission range sensor/switch, and/or park/neutral switch.
- 1008 Inspect, replace and/or align powertrain mounts.
- 1102 Drain and refill manual transmission/transaxle and final drive unit.
- 1103 Check and adjust clutch master cylinder fluid level.
- 1203 Inspect A/C condenser for airflow restrictions; determine necessary action.
- 1204 Inspect engine cooling and heater systems hoses; perform necessary action.
- 1205 Inspect A/C-heater ducts, doors, hoses, cabin filters, and outlets; perform necessary action.

STUDENTS OCCUPATIONALLY & ACADEMICALLY READY



- Earn college credits which will save you money on tuition
 - Shorten college attendance
 - Get on the right career path
 - Enter the job market prepared
 - Get a consistent education
 - See your CTC School Counselor for More Information

TO QUALIFY CTC STUDENTS MUST:

- 1. Earn a high school diploma, achieve a minimum 2.5 GPA on a 4.0 scale in your CTC program and complete the PDE approved Program of Study.
- 2. Earn the industry certifications offered by your program (if applicable).
- 3. Achieve Competent or Advanced on the NOCTI End of Program Assessment.
- 4. Achieve proficiency on ALL of the Program of Study Competency Task List.
- 5. Provide documentation to Postsecondary Institution that you have met all of the requirements!

Find out more about the colleges offering course credits you can earn while attending RMCTC. Go to <u>collegetransfer.net</u>, search: PA Bureau of CTE SOAR Programs, and find your program by CIP Code.



*To receive college credits, qualifying students have three years from their date of graduation to apply and matriculate into the related career and technical program at a partnering institution.

AUTOMOTIVE TECHNOLOGY

Automotive Technology – "A career is not a destination – but a JOURNEY"

ATT (Automotive Technology Trade) – Uniform Policy

Dear Parent/Guardian,

In order to safeguard the physical well-being of our students, it is sometimes necessary to require appropriate personal safety equipment and clothing to be worn by our students while they are receiving Automotive Training at the Reading Muhlenberg Career & Technology Center.

Safety equipment will be supplied by the school and Safety Clothing <u>must be provided by the</u> <u>student</u>...

School provided equipment:

- Eye Protection: Safety glasses, goggles, face shields, welding helmets, & side protectors for prescription glasses
- Ear protection: *ear plugs and headphones*

Students provided clothing: (estimated cost for everything is \$100.00)

- Footwear boot or shoe <u>must</u> have an 'oil resistant' soul and may be steel toed
- Dark Blue Shirt Cotton tee's are ok or 'Dickies' that have short or long
 sleeve button-down shirts that match their pants
- Dark Blue Work Pant 'Dickies' Type (NO BLUE JEANS)
 - The Students' entire leg must be covered for safety!
- \checkmark Appropriate clothing is required for active participation in the program
- Clothing should be form fitting and **not** 'Baggy.' Baggy clothing is dangerous and can get caught in machinery.
- $\checkmark\,$ Clothing should be cleaned on a regular basis to assure safe & sanitary operation of the school.

Recommended places to purchase this equipment would be 'Wal-Mart' & 'Super Shoes'

Note: If a student is not properly dressed for his/her instructional activity, the <u>daily</u> "Work Ethic" grade will suffer. Eventually, a student may **FAIL** his/her course due to inappropriate dress. Please see the 'STUDENT HANDBOOK' under "Dress Code" section for additional information.

Thank you for your cooperation. Respectfully yours,

S Morrow for

Mr. Samuel Morraco Jr. Reading Muhlenberg Career and Technology Center Automotive Technology Instructor <u>smorraco@rmctc.org</u> Revised 8/2013

I. <u>General</u>: <u>SAFETY FIRST!</u>

1. HORSEPLAY IS HIGHLY FORBIDDEN!!!!

2. Do not sit at instructors'/staffs' desk at any time!

Please show respect – Remember the 'Golden Rule'

3. ABSOLUTELY NO:

- 1) **FIGHTING**
- 2) **DRUGS**

3) WEAPONS

Note: Students who violate the above will be **suspended** & referred to the local police for additional criminal charges.

4. No Smoking on school premises

5. Only appropriate safety clothing is permitted in shop area.

- Safety glasses **MUST** be worn at all times.
- Work clothing and Safety Shoes
- Long hair must be tied back and out of the face.
- Long chains must be tucked-in behind shirt or removed
- Watches and bracelets must be removed

6. The following clothing is NOT permitted

- Shirts or pants that display anything 'vulgar' or 'illegal'
- Jewelry or wallets that can be used as a weapon Example: chains or spikes

7. No eating and drinking in shop area

- May have snack in theory room only!
- ALL trash must be put into trash cans

Note: Privilege may be revoked at any time according to instructor/staff

8. Each student is responsible for his/her belongings.

- Each student will be assigned a locker
- YOU are responsible for keeping it clean
- All coats, jackets, sweaters, and other wearing apparel must be hung up in lockers or on the wall rack.
- *** Jackets, 'hoodies', and book bags are **not** permitted outside of classroom.

9. No Excessive noise:

- Screaming
- Hollering
- Banging on tables and chairs
- No talking to other students while they are operating dangerous machinery.

II. <u>School Property/Equipment</u>:

Students', who lose, destroy, deface or damage school property, must reimburse the school for its loss.

- 1. Do not operate equipment without the instructor's permission
 - Students must also pass equipment safety tests.
- 2. Absolutely NO writing is permitted on school property.
- 3. Do not prop feet on chairs, tables or equipment.
- 4. Do not lean back on chairs
- 5. Do not lean against ANY vehicles
 - Vehicles should always be treated like they are your own.
 - Students are not allowed to be inside any vehicle unless they have permission of the instructor.
- 6. Report any damaged of defective equipment to instructor or staff

7. Do NOT operate equipment without the instructor's permission

III. <u>Classroom</u>:

- 1. The following will NOT be tolerated/permitted:
 - 1) Disrespect
 - 2) Hostility
 - 3) Unbecoming behavior towards other students and instructor
 - 4) Cursing
 - 5) Obscene language
 - 6) Insulting remarks towards other students and instructor

2. <u>ALL</u> students are to remain at tables and in their seats until the dismissal bell rings or an announcement is made.

- **No one** is to stand in the door way or in the hall.
- Instructor and/or staff has the ultimate say when students are dismissed! (See student handbook)

IV. Shop/Tool Room:

- 1. Each student is required to clean-up his/her area before leaving the school at the end of class.
- 2. Clean-up will be announced by the Instructor of Shop Foreman only.
- **3. Floors must be kept clean and aisles clear to prevent injury.**If something is spilled on the floor, it must be cleaned immediately
- 4. No one is allowed in the tool room or supply area without permission from the instructor.
- 5. Tool tags will be used at all times (no tag = no tool)
- 6. All tools that a student/s needs MUST be signed out and returned Before leaving for Social Studies or the end of the class.

Parents/Guardians please sit down with your child and read these rules together one by one.

Rules and regulations are for the benefit of ALL students and have been established to ensure the safe operation of the school.

Your signature below acknowledges that all rules/policies have been read together and understood together.

Signature: Parent/Guardian

Date:

Signature: Student

Date:



Home/Class-Work Grade Policy- ATT (rev 8.2012)

It is the students' responsibility to <u>make up</u> his or her work when absent provided their absence was excused! All work missed through unexcused absences will be graded as a zero!!

- ✓ Students are expected to submit assignments on the established due dates.
- \checkmark Late assignments may be penalized as much as fifty (50%) percent of the grade.
- ✓ Unexcused absences are defined as those absences when the student does not attend class and does not notify the school and/or provide a valid excuse (example: illness/fieldtrip/doctor appointment)

Make up work for Excused Absences:

- 1. One (1) to Three (3) days excused five (5) school days to complete assigned work.
- 2. Four (4) or more days excused ten (10) school days to complete assigned work.

A = 100% - 90%

Assignment completed on time Assignment was completed with 90% accuracy Evidence of careful research on subject matter Independent thinking within the written assignment

B= 89% - 80%

Assignment completed on time Assignment was completed with 80% accuracy

C= 79% - 70%

Assignment completed NOT on time Assignment was completed with 70% accuracy

D= 69% - 65%

Assignment completed NOT on time Assignment was completed with 60% accuracy

F= 64% and below

Assignment incomplete or unacceptable. Failure to complete assignment or No attempt was made. Demonstrates little or no interest in subject matter Student assignment/work was copied from another student



Daily Work Ethic Grade - ATT

Work Ethic Grade is worth 40% of your grade

Attitude is everything!

Each student receives a daily 'Work Ethic' Grade Values are for 10 down to 1 (Unexcused absence will result in a daily grade of '0')

10 = 100%; 9 = 90%; 8 = 80%; 7 = 70%; 6 = 60%; 5 = 50%; 4 = 40% 3 = 30%; 2 = 20%; 1 = 10%; & 0 = 0%

Each Student starts his/her day with an '8'

Students' points can move upward up or downward according to their performance that day.

If the student is PREPARED, applies themselves, performs well, and CLEANS UP properly that day - they will receive a '10'

If the student does NONE OF THE ABOVE, they will LOSE Work Ethic grade points!

ATT WORK ETHIC POINT DEDUCTION SYSTEM - From '10'

| -10 = Unexcused Absence | -9 = Refuse to work |
|------------------------------------|---------------------------------|
| -8 = Insubordination/Disrespectful | -7 = Safety Violation/Horseplay |
| -6 = Refuse to change/No Uniform | -5 = Falling Asleep in theory |
| -5 = Not returning tools/equipment | -5 = Not cleaning work area |
| -4 = Disrupting class/shop | -4 = Unprepared for class |
| -3 = Unauthorized area | -3 = Wasting time/materials |
| -2 = Unacceptable Language | -1 = Late to class |

Your signature below acknowledges that all rules/policies have been read together and understood together (Parent/Guardian and Student).

Signature: Parent/Guardian

Date:

Signature: Student

Date:

- \checkmark The following is a list of tools available for your child's use in the shop.
- ✓ Please review the list CAREFULLY with your child and decide if your child may use these tools.
- ✓ Parents are encouraged to request a demonstration of a tool by the instructor.... Please call to make an appointment!
- ✓ **PARENTS....Please initial NEXT to the tool/equipment under the appropriate column.**
- ✓ Empty spaces will be considered as a `no.'

| <u>Equipment</u> : | <u>YES</u> | <u>NO</u> |
|----------------------------|------------|-----------|
| Tire Changer/Balancer | | |
| Drill Press | | |
| Bench Grinder | | |
| Valve Grinder | | ······ |
| Solvent Tank (clean parts) | | ······ |
| Hydraulic Press | | |
| Valve Seat Grinder | | |
| Hand Drills | | |
| Vehicle Lifts | | |
| Floor Jack & Stands | | |
| <u>Air Tools</u> : | | |
| Impact Guns Air Grinder | | |
| Air Chisel | | |
| | | |
| Hand Tools: | | |
| Wrenches | | |
| Sockets & Ratchets | | |
| Pliers | | |
| Hammers | | |
| Chisels & Punches | | |
| Assorted Specialty Tools | | |
| | | |

Signature: Parent/Guardian

Date

Signature: Student

Date



AUTOMOTIVE TECHNOLOGY - ATT

BOOKS/TOOLS/ EQUIPMENT BORROWING POLICY

When borrowing a tool/book care must be taken or the tool/book must be paid for if.....

If the tool borrowed has been:

- 1. Lost
- 2. Stolen
- 3. Damaged
- 4. Not returned

That item must be replaced according to the means set forth by the instructor.

I agree to return the 'item' borrowed in the same condition I received. If not I/we will pay for a replacement tool by means set forth by the instructor.

Print Name

Sign Name

Date

'Item' Description and/or Part Number

Witness signature and Date

Date Returned and Initial



Student Information Form - ATT

Please <u>print</u> the following information and return to your instructor. The following information will be used by the instructor for contact purposed only!

| Last Name | First Na | me | Μ | iddle Initial |
|---------------------|-----------------|---------------|--------|---------------------|
| Street Address | City | Stat | 2 | Zip Code |
| Home Phone Number | r Home Sc | :hool Gr | ade | Sex (M or F) |
| | ATT | | У | es/No |
| Date of Birth (DOB) |) Instruction | al Area Inter | preter | r Required (circle) |
| Parent/s or Guardia | n/s with whom r | esiding (Name |) | Relationship |
| Mother's Name | Address | Phone Nur | nber | Email Address |
| Place of employment | t | Wo | rk Pho | one Number |
| | Address | Phone Numb | er | Email Address |
| Father's Name | | | | |

<u>Reading/Muhlenberg</u> <u>Career & Technology Center</u> *Automotive Technology - ATT*

Electronic Device & Cell Phone Policy

I. General Provisions: All cellular telephones, camera phones, electronic games, IPods, or any other personal electronic devices are <u>NOT</u> permitted in the school and/or classroom.

PA-Law: cell phones are <u>NOT</u> permitted in PA public schools PA School Code - Section 1317.1(see - RMCTC Student Handbook)

- **a.** Any device found in the possession of a student at RMCTC will be subject to confiscation of such devices and locked in a safe at the Main Office.
- **b.** Devices that have been confiscated can be picked up by a parent/Guardian at the Main Office during regular business hours.
 - (Monday thru Friday 7:00am to 3:30pm)
- **c.** Such electronic devices disrupt the instructional program and distracts from the learning environment.
- **II.** If it is necessary that you must contact your child, a simple call to the school at 610.921.7300 will allow you to get connected to your child quickly.

Please understand the seriousness of this rule and regulation!

'Rules and Regulations' are for the benefit of ALL students and have been established to ensure the safe operation of the school.

Signature: Parent/Guardian

Date:

Signature: Student

Date:

Samuel Morraco Jr. Automotive Instructor Reading/Muhlenberg Career & Technology Center

(Rev. 12/2016)

| ATT - DISC | IPLANARY ACT | ION FORM | VIOLATION # |
|----------------------|-----------------------------------|----------------------------|---------------------------|
| Student: | | | |
| Instructor: | | | |
| TYPE OF INCII | DENT: | | |
| Safety Violation | Disruptive Behavior | □ Damage to H | Property/Equipment |
| Foul Language | □ Theft of Property | □ Other: | |
| Date(s) of Inciden | ıt | Time | e of Incident: |
| Type of Incident | : Description: | | |
| | | | |
| | | | |
| | | | |
| Corrective Action | n Plan: | | |
| | | | |
| Next Action Step | If Problem Continues: | | |
| Verbal Warning | Phone Call Home | School Write Up | Parent/Teacher Conference |
| Other | | | |
| | | | |
| Student Signatur | re & Date | | |
| I acknowledge receip | t of this disciplinary action for | m and its contents have be | een discussed with me. |
| Instructor Signat | turo & Data | | |
| 0 | luie & Date | | |

GRADE REPORTING

Purpose: The intent of this grading procedure is to provide a student grade that accurately reflects student achievement. Progress will be measured in the areas of work ethics, and knowledge. All activities and assessments that are required as the student progresses through their skills (learning guides) will be reflected within the knowledge grade. Students will be evaluated according to established program standards on an individual basis. The ClassMate grading software automatically calculates student grades using the following formula:

Work Ethic 40% Knowledge 60% 100%

Teachers must be able to justify grade percentages in the event of inquires or concerns.

Interpreting a Grade: The two levels of evaluation are described below:

Work Ethics Grade (40%): Each school day, every student receives a Work Ethics or daily grade. Criteria that comprise these grades are safety, student behavior, preparation/participation, productivity or time on task, professional appearance and extra effort. The Work Ethics grade range is based on a 0 to 10 model that students may earn each day depending on how many criteria they satisfactorily meet.

NOTE: Impact of Absenteeism, Tardiness/Early Dismissals - The direct effect of absenteeism on a students' grade will be through the Work Ethic component of the grading formula. If a student is Tardy or has an Early Dismissal the Work Ethic grade will automatically be defaulted to a five (5) from a possible ten (10) points. The instructor may change this value as they see fit.

Knowledge Grade (60%): Throughout the marking period, a student's cognitive knowledge about various career-specific topics will be evaluated and recorded by the instructor. Examples of knowledge activities include: lab/shop assignments, homework, quizzes, tests, and research activities. The Knowledge grade range is based on actual points earned divided by the total accumulative points.

Task tracking: For the purpose of students earning a job title associated with their program are, teachers track students' skill/task work. Teachers identify specific criteria to evaluate each task performed, ranging from a 0 to 5 (not completed to mastery). Students must earn a 4 or 5, in order to credit the task towards earning the specific job title. Students have the opportunity to revisit a task multiple times until successfully receiving credit. The job titles a student earns will be listed on the student's RMCTC certificate that is awarded at Senior Recognition Night.

GRADE REPORTING (continued)

CTC Letter Conversion Table Grade Letter

100 – 97 A+ 96 – 93 A 92 – 90 A-89 – 87 B+ 86 – 83 B 82 – 80 B-79 – 77 C+ 76 – 73 C 72 – 70 C-69 – 65 D 64 – under F

Final Grade average is based on the student's four (4) numerical marking period grades. The final average will directly align to the letter conversion table listed above.

If a student has three (3) marking period grades of "F" the teacher shall give appropriate consideration to that student not passing for the year. If a student is on an **upward trend** at the end of the school year, this **may** justify having the student pass for the year. If the opposite is true, and the student is on a **downward trend**, the student **should** receive a failing grade.

The individual teacher must evaluate each student's achievement in terms of the expected goals for their program area.

Failure to complete assignments, frequent lateness or absence, and demonstrated indifference to school are major contributors to student failure. **Blatant refusal** to attempt or to complete a significant number of course requirements may, by itself, justify a final course grade of "F".

The following divisions are given as a guide to recording and interpreting the grading system. It remains for each teacher to objectively and fairly rate each student, not based upon personality, but performance.

Determination of Grades: Teachers will give thorough consideration using all grading components in determining students' grades to both class work and test results.

A = **Excellent**

1. This grade represents **superior work** and is distinctly an honor grade.

2. The excellent student has reached all course objectives with high quality achievement.

3. The excellent student displays unusual effort and works willingly and effectively in reaching required objectives.

GRADE REPORTING (continued)

$\mathsf{B}=\textbf{Good}$

1. This grade represents **<u>above average</u>** quality achievements.

2. The good student has reached a large majority of course objectives.

3. The good student is industrious and willing to follow directions.

C = Average

1. This grade represents acceptable quality achievements.

2. The average student has reached a majority of course objectives.

3. The average student is cooperative and follows directions, yet extra effort and improvement are needed for more complete mastering of the material.

D = Passing

1. This grade represents a **minimum acceptable** quality achievement.

2. The student is performing below-average work and has not reached a majority of course objectives.

3. This achievement level indicates there is a great need for improvement, daily preparation and improved dedication and attendance.

F = Failure

1. This grade represents *unacceptable* quality achievements.

2. The failing student has not reached necessary course objectives.

3. The failing student has not attempted to complete assignments, is constantly late or absent, and generally has failed to accomplish the fundamental minimum essentials necessary in the program area.

4. It may be noted that generally a student does not fail because of a lack of ability; failure may be caused by laziness, non-dedication, or a general disregard to directions of the teacher and the unwillingness to use whatever ability he/she possesses.

Incomplete Grades: Incomplete grades must be updated no later than ten (10) days from the close of the marking period. As soon as the work is completed and the grade is available, it must be reported to the appropriate person.

Failures: Students who receive a failing final grade in a program area are permitted to repeat that program, but are urged not to do so for obvious reasons. If this situation presents itself, students and parents are advised to consider an alternative program which is probably more suited to the student's true interests and aptitudes and not merely satisfying a short-term or unrealistic desire.

<u>Attendance and its Impact upon Grades</u>: The importance of regular school attendance and its positive impact upon a student's performance grade cannot be overstated. If a student is absent, he or she does not have the opportunity to keep pace with their classmates and must work independently to acquire the information missed during any absence. Regardless of how well a student performs when he/she is present, habitual absenteeism usually results in a failing performance grade. This situation is not unlike the conditions of the business or industry for which the student is being trained.

GRADE REPORTING (continued)

<u>Make up Work for Absences</u>: Students have the opportunity to make-up school work due to an illness/being absent from school. <u>PROVIDED</u> their absence is <u>excused</u>. Students must submit make-up work within the following timelines:

1. One (1) to three (3) days excused absences – five (5) school days to complete assigned work.

2. Four (4) or more days excused absence – ten (10) school days to complete assigned work.

All work missed through unexcused absences will be graded as a zero

Report Cards (See Progress Reports): Students will receive a report card from the sending school district which will reflect the student's grade from their Career & Technology program. <u>Students will also receive a report card from RMCTC reflecting their program grade and Social Studies grade, where applicable.</u> In addition, grades are available on the parent portal.

<u>Senior Recognition Night</u>: Reading Muhlenberg Career & Technology Center hosts an annual Senior Recognition Night, which honors our senior students. During this event, all senior students in attendance are recognized and may also receive awards that they have earned relevant to their accomplishments while attending Reading Muhlenberg CTC.

PARENT PORTAL: The Parent Portal is available for parents/guardians to view your child's progress by accessing the RMCTC District Portal on the School's web-site; <u>www.rmctc.org</u>. This will give you up to date information related to your child's attendance, grades (work ethic and knowledge), discipline referrals and schedule. In order to use this resource, you must provide the CTC with a current email address and register online.

Log onto <u>www.rmctc.org</u>, click on "**Parents**", then click on "**parent portal**" which will navigate you to the link where you will log into the portal. You will have to "**create an account**" on your first visit to the portal by using your email address (you need to use the email address you provided us on your child's application) and setting up a password. Once registered you may return at any time to view your child's information.

Please utilize our website, to track your child's progress by viewing their grades and attendance, along with any discipline action. In addition you will be able to review your child's report cards & progress reports as soon as they are available. You also have the ability to select the option to receive email notifications for specific instances that you choose. You can choose to receive an email automatically if your child is absent/tardy or both, if your child receives a discipline referral or suspension and if your child receives a specific grade.

CAREER & TECHNICAL STUDENT ORGANIZATIONS (CTSO)

All students enrolled in Reading Muhlenberg Career & Technology Center have the opportunity to participate in at least one Career & Technical Student Organization (CTSO) while enrolled at the CTC. Students who become members in these co-curricular organizations have the opportunity to participate in team building, leadership, community service and social events.

Students also have the opportunity to attend skill competitions where the skills they have learned are "put to the test" against other competitors. These competitions include testing of knowledge and handson skills in a variety of trade and leadership events. Students who are fortunate enough to win their events at a district or state competition are able to compete at the national level and travel to locations such as Louisville, KY, Kansas City, MO, San Diego, CA, Orlando, FL, and Cleveland, OH.

SkillsUSA



http://skillsusa.org

SkillsUSA is a national organization of students, teachers and industry representatives who are working together to prepare students for careers in technical, skilled and service occupations. SkillsUSA provides quality education experiences for students in leadership, teamwork, citizenship and character development. It builds and reinforces self-confidence, work attitudes and communications skills. It emphasizes total quality at work, high ethical standards, superior work skills, life-long education, and pride in the dignity of work. SkillsUSA also promotes understanding of the free-enterprise system and involvement in community service.

National Technical Honor Society (NTHS)



www.nths.org

NTHS is the acknowledged leader in the recognition of outstanding student achievement in career and technical education. Over 2000 schools and colleges throughout the U.S. and its territories are affiliated with the NTHS. Member schools agree that NTHS encourages higher scholastic achievement, cultivates a desire for personal excellence, and helps top students find success in today's highly competitive workplace.

NTHS members receive: the NTHS membership certificate, pin, card, window decal, white tassel, official NTHS diploma seal, and three personal letters of recommendation for employment, college admission, or scholarships. Students will have access to our online career center including these valuable services: MonsterTRAK, Wells Fargo, Career Safe, and Career Key.

READING-MUHLENBERG CAREER & TECHNOLOGY CENTER

WORK BASED LEARNING Cooperative Education & Internships RULES / GUIDELINES

1. All Work Based Learning (WBL) students must have school WBL forms completed before starting the job/internship, and any student less than 18 years of age must also have a transferable work permit.

2. ABSENT FROM SCHOOL????? – NO WORK!!!!!!!!

- If you are absent from school in the morning, you may <u>NOT</u> go to work in the afternoon. **YOUR JOB IS PART OF YOUR SCHOOL DAY**. If you are at a **medical, social service, or court appointment** in the AM, you **may** go to work that day. However, you must bring a note **from the agency where you were**, to your attendance secretary, the next school day.
- If you are ill, **YOU** must call your employer to inform him/her that you will not be reporting for work.
- <u>IMPORTANT</u>: If your name is going to appear, <u>for any reason</u>, on your sending school absentee list, you must also report off to Mrs. Albarran @ 610-921-7301. Failure to report off will result in removal from WBL.
- If school is closed for a holiday, in-service day, or a snow day, you **DO** go to work on those days, if you are scheduled.
- If you are suspended **out of school** you may not work at your WBL job. This includes jobs that are scheduled with after school hours.
- **REPETITIVE ABSENCES** at school or work will result in your removal from Work Based Learning.
- 3. All WBL students are required to report to the CTC every Monday. Any additional classroom time is at the discretion of your program area teacher. You are responsible for communicating this to your employer. On the first Monday of each month, immediately upon arrival, report directly to <u>Student Services</u>, where you will sign in with Mrs. Baller. Co-op students will record hours and earnings, and then return to your program area for the remainder of the school day. Don't forget to bring your check stubs to record your hours and earnings! Internship students will record hours. If you miss two Monday meetings, you will be removed from WBL.
 - Any violations of these rules will result in the following discipline action: 1ST violation – VERBAL WARNING 2nd violation – REMOVAL FROM WORK BASED LEARNING
- 4. When at work you are guided by and are responsible to your employer. Be sure to follow all of the Employers' rules and regulations because you will be terminated for the same reasons as any other employee.
- 5. If your work experience is terminated for any reason, you must return to school the next day, and inform your CTC teacher and the Work Based Learning Coordinator.
- 6. If you wish to terminate your employment, you must discuss this with your teacher and the Work Based Learning Coordinator, and leave the job properly by giving the employer a two-week notice and a letter of resignation.
- 7. If you have any questions concerning the rules and guidelines of Work Based Learning, please contact the WBL coordinator at 610-921-7337.

STUDENT SIGNATURE

PARENT/GUARDIAN SIGNATURE