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The Building Property Maintenance Program

CIP 46.0401

Instructor: Richard Tylka
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Have Questions?

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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
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Building & Property

- Construct, erect, install, and repair all residential building components.
- Operate power tools, read construction drawings, produce estimates, and evaluate and perform project cost analysis.
- Earn industry-recognized, valuable certifications, such as OSHA, PBA, and fork lift certifications.
- Fabricate, weld, and machine metal materials.



Job Titles – Career Pathways

13-1051 Cost Estimator
47-2061 Construction Laborers
47-2152 Plumbers, Pipefitters and Steamfitters
47-3012 Helpers — Carpenters
47-3013 Helpers — Electricians
49-9042 Maintenance and Repair Workers, General
49-9098 Helpers — Installation, Maintenance, and Repair Workers
51-4121 Welders, Cutters, Solderers, and Brazers

CTC knowledge transfers to college credits at:

Commonwealth Technical Institute
Community College of Allegheny County
Luzerne County Community College
Orleans Technical Institute
Pennsylvania College of Technology

Student Certifications

NOCTI – National Occupational Competency Testing Institute Certification

* Building Property Maintenance
Forklift Operator Certification

OSHA – Safety Certification

PBA – Pennsylvania Builders Association

Accreditations

PBA – Pennsylvania Builders Association



Instructor – Mr. Richard Tylka

Biography

I would like to introduce myself as your student's teacher at Reading Muhlenberg Career and Technology Center. My name is Richard Tylka and I'll have the honor of teaching your student for the next few years. I have lived in Berks County my whole life, and have been involved in the trades since I was 18. I worked maintenance at a local camp as a college student. I have a bachelor's degree from Millersville University and have a background in education. I started my own contracting business and did general contracting before moving into flooring and finish carpentry.

Education

Bachelor's Degree in Earth Science from Millersville University

Work Experience

I've been a self-employed contractor for a dozen years.

Hire Date

2022



Dear Parents,

I would like to introduce myself as your student's teacher at Reading Muhlenberg Career and Technology Center. My name is Richard Tylka and I'll have the honor of teaching your student for the next few years. I have lived in Berks County my whole life, and have been involved in the trades since I was 18. I worked maintenance at a local camp as a college student. I have a bachelors degree from Millersville University and have a background in education. I started my own contracting business and did general contracting before moving into flooring and finish carpentry.

BPM students will have a busy few years as we cover carpentry, plumbing, electrical, roofing, welding and concrete/bricklaying. We approach learning using both hands on classroom theory. Most days your student will be in our workshop using up to date equipment and techniques to master these skills and build projects that will test their knowledge and expand their skills. Classroom work will focus on the theory behind workshop learning as well as math, writing skills and applicable science skills.

Since we will be working hands-on your students will be wearing a mandatory uniform. They will receive two t-shirts and boots as part of the program. The only thing that will need to be supplied is pants suitable for work. Jeans or khakis are preferable, two pairs would be ideal. Each week laundry service is provided so their uniforms will be cleaned and returned to them. If you need any assistance or if they need a spare shirt or pants we have some back ups that will be lent out. I don't want to have their regular school clothes get soiled or ruined so the uniform is an important part of the learning experience. This will also teach them what to expect when they enter the workforce and appropriate attire is demanded.

Students are expected to maintain a professional attitude in this course as that is what they are preparing to enter. Professionalism and the ability to make sound ethical and business practices are expected from our students. They will be expected to be on time and ready to learn. We deal with potentially dangerous activities and coming in ready to learn is necessary to keep a safe and productive learning environment.

Thank you for allowing your student to step out of the usual school reality and learn important hands-on skills and ways to succeed in their future career. I will do my best to make sure they learn and are prepared to enter the workforce or whatever their goal is after high school. I hope we can work together to ensure their future success. I will reach out if your student is having any trouble so we can come to an effective solution. On the same note if you have any issues you wish to discuss please don't hesitate to contact me at rtylka@rmctc.org or call (610)921-7300 and ask to speak with me.

Sincerely,

Richard Tylka

Instructor-Building and Property Maintenance RMCTC

Program Planning Tool

Program Title: CIP 46.0401 BUILDING PROPERTY MAINTENANCE

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) a multiple choice test and (2) a performance test consisting of occupational related tasks scored and 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 include scope of the curriculum. Accommodations are not permitted for industry certifications and are OSHA and Pennsylvania Builders Association Skills Certificates.
- 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 by using learning guides in a self-directed manner. The laboratory experiences for students in this program include the basics of several building trades. Students will be required to use a variety of hand and power tools that will include hammers, files, wrenches, trowels, power saws, table saws, power drills, drill presses, jointers, routers, blow torches, welding equipment, workshop presses, pipe cutters, and circuit testers.
- Students will also be required to use ladders and scaffolding. Using this equipment requires self-discipline and strict adherence to rules to ensure safety of self and others. The laboratory simulates a real working environment therefore students will be exposed to the noise levels, dust, debris, and fumes associated with the occupation.
- Participate in Career & Technical Student Organizations including HBA, 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).
- Participate in classroom theory and laboratory applications for generally 2 ½ hours each day; students will spend 30% of their time in classroom theory and 70% of their time doing laboratory applications and live work.
- Complete written and performance tests (a minimum of one written quiz per week and a minimum of 2 tests per quarter). Students will be evaluated weekly on occupational skill performance using rubrics. Students will also 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 and most technical manuals are written at a higher level.
- Complete homework on time. Homework is issued a minimum of two nights a week and usually can be completed in one hour or less. Homework typically involves chapter or workbook assignments, on line research assignments and at least two five paragraph essays per report period.
- Purchase appropriate work and safety attire, tools, equipment and reference books.

Program Planning Tool

CTE Requirements	Present Educational Ability/Level	Support Needs
<p>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.</p>		
<p>Reading and Language Arts Level- Text and manuals written on a 10th-11th grade reading level. Proficient on end-of-course exam (Keystone). Must have ability to read, understand and apply engineering science and technology, to include technical plans and blueprints. NOCTI assessment and industry certification exams require a proficiency in English language skills</p>		
<p>Math Level - At grade level and proficient on end-of-course exam (Keystone). Knowledge of arithmetic, algebra, geometry and their applications. Ability to calculate materials using floor plans, elevations and sectional plans. Ability to apply construction geometry; calculate board and square feet, linear measures, square measures, and cubic measures; convert fractions, decimals, and percents; simplify measurements. Ability to calculate electrical loads and perform electrical mathematics. Ability to do precise measuring and dimensioning according to blueprints and drawings. Ability to use math to solve problems.</p>		
<p>Aptitude – Mechanical, numerical ability, critical thinking, inductive reasoning, visualization and spatial relations. Problem solving and troubleshooting skills.</p>		
<p>Safety & Physical – Manual dexterity, multi-limb coordination while standing, sitting or lying down, arm-hand steadiness and finger dexterity. General body coordination and stamina that requires considerable use of arms, legs and whole body. High degree of self-discipline and focus needed for safety around moving equipment, hand tools, power tools and other equipment found in the industry. Physical strength and stamina with the ability to lift 50 lbs. overhead. Ability to work in all weather conditions, work independently, have good eye/hand coordination, color discrimination, no fear of heights or working in closed spaces.</p>		
<p>Interpersonal/ Social – Active listening, communication skills with supervisors and peers, ability to work alone or cooperatively on a team.</p>		
<p>Other Occupational/Program Considerations – Teamwork, excellent measuring skills, Learning and work environment includes various chemical and wood smells and dust, dirt and debris, loud and sometime startling noises, ongoing background noise, moving people and construction equipment, small spaces, interior or exterior work factors/environmental factors, scaffolding and ladders.</p>		

Scope and Sequence Building Property Maintenance 46.0401



Academic Subjects – 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 cannot 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.

Subject (Hours)	Secondary School				Postsecondary Institution			
	Grade 9 (Hours)	Grade 10 (Hours)	Grade 11 (Hours)	Grade 12 (Hours)	First Semester	Second Semester	Third Semester	Fourth Semester
Technical		Customer Service & Safety	Interpret Blueprints	Electrical Practices	BCT 102: Construction Safety and Equipment	BCT 118: Construction Materials and Applications 1	BCT 234: Masonry Principles	BCT 255: Construction Estimating
		Prepare for Maintenance Occupations	Electrical Practices	Surface Treatments	BCT 103: Construction Hand and Power Tools	BCT 119: Blueprint Reading and Specifications	BCT 238: Concrete Construction	BCT 256: Residential Construction Planning, Schedule

		Electrical Practices	Carpentry Procedures	Plumbing fixtures & fittings	BCT 109: Framing Principles	BCT 127: Roof Framing and Exterior Finishing	BCT 260: Introduction to Electrical and Mechanical	BCT 257: Interior Finish and Trim
		Carpentry Practices	Plumbing	Maintenance Services	BCT 110: Site Preparation and Layout			BCT 258: Computer Applications for Construction
		Plumbing	HVAC & Appliance Repair & Maintenance	Masonry & Concrete	BCT 117: Construction Materials and Applications 1			
		Masonry & Concrete Procedures	Job Seeking/Keeping Skills	Welding & Cutting				
		Job Seeking/Keeping Skills		OSHA				
				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 I	ENL 201: Technical & Professional Communication	
Math	Algebra I	Geometry	Algebra II	Trigonometry	MTH 124: Technical Algebra & Trig I			
					MTH 180: College Algebra and Trig I			
Science	Accl Integrated Science	Biology	Chemistry	Physics			PHS 103: Physics Survey	
							PHS 114: Physics w/Technological Applications	
Humanities	Citizenship	World Cultures	American History I	American Government				_HUM: Elective: HUM/SSE/ART/FOR/IAE
Other	Physical Education	Physical Education	Physical Education	Physical Education		FIT: Elective: Fitness		
	Health	Health	Driver's Ed Theory					

46.0401 Building/Property Maintenance & Manager

100 - Safety

101 - Follow general shop safety procedures.

102 - Wear personal protective equipment.

104 - Identify the components of the Occupational Safety and Health Act (OSHA) and state its purposes.

105 - Lift and carry objects using ergonomics.

106 - Follow Safety Data Sheets (SDS).

107 - Follow general ladder safety.

108 - Identify scaffolding and other elevated work surfaces.

109 - Identify classes of fires and types of fire extinguishers.

110 - Follow fall protection safety procedures.

111 - Identify the requirements of building permits.

200 - Building and Property Maintenance

201 - Follow building and property maintenance (BPM) lab rules and procedures.

203 - Follow safety rules for tools, machines, and processes.

205 - Identify lab tools and equipment.

206 - Keep daily timecards and project logs.

207 - Record daily units/hour records.

210 - Use safe methods of storing materials and supplies.

211 - Use measuring devices.

212 - Estimate quantities of materials.

300 - Carpentry and Repairs

301 - Identify common building materials.

302 - Read and interpret building plans.

303 - Prepare a bill of material.

304 - Layout stock.

305 - Layout angles.

306 - Find the center line of stock.

307 - Use a sliding T-bevel to transfer an angle.

308 - Transfer a cut line using a marking gauge.

309 - Test a level for accuracy in the vertical and horizontal positions.

310 - Check a horizontal surface using a level.

311 - Check a vertical surface using a level.

312 - Snap a chalk line.

314 - Bore holes with various drill bits.

316 - Select nails for a specific job.

317 - Drive and remove nails using a claw hammer.

319 - Pull nails with a wrecking bar or other nail removal tools.

321 - Select and install screw-type fasteners.

322 - Identify fasteners and anchors for various uses.

327 - Check for square.

400 - Portable Power Tools
401 - Follow safety rules and procedures for using portable power tools.
402 - Operate portable electric and battery-operated drills.
403 - Operate a metal cutting (abrasive disc) chop saw.
404 - Operate a portable jigsaw and reciprocating saw.
405 - Operate a router.
406 - Operate a disc grinder.
407 - Operate an oscillating multi-tool.
500 - Table Saws
501 - Follow safety rules and procedures for using a table saw.
502 - Rip stock on a table saw using a rip fence.
503 - Crosscut stock on a table saw with a miter gauge.
600 - Drill Presses
601 - Follow safety rules and procedures for using a drill press.
602 - Drill holes in metal using a drill press.
603 - Drill holes in non-metallic materials using a drill press.
700 - Compound Miter Saws
701 - Follow safety rules and procedures for using a compound miter saw.
702 - Cut stock to length on a miter saw.
703 - Cut angles on a miter saw.
704 - Cut compound angles on a miter saw.
800 - Bench Grinders
801 - Follow safety rules and procedures for using a bench grinder.
802 - Sharpen cutting tools on a bench grinder.
803 - De-burr stock on a bench grinder.
900 - Tool and Machine Maintenance
901 - Replace or repair broken tools.
902 - Examine power tool and cords for damage and replace or repair.
903 - Lubricate moving parts of power tools as recommended by the manufacturer.
904 - Replace saw blades and other cutting tool accessories when dull.
905 - Sharpen edge cutting tools.
906 - Remove dust from power tool stators and rotors.
907 - Remove paint, oils, water, and lubricants from tool handles and power tool housings and chassis.
908 - Examine extension cords for damage and replace or repair male/female cord ends.
1000 - Structural Floors
1001 - Identify floor members.
1002 - Install joist hangers.
1003 - Install or replace bridging between joists.
1004 - Repair (remove or replace) plywood sub-flooring on joists.
1005 - Describe platform, balloon, and post and beam framing.
1006 - Layout and install sill plates.
1007 - Layout and install floor joists and openings.
1008 - Layout and install subflooring.

1100 - Roofs
1101 - Identify roof members.
1102 - Identify roof types.
1103 - Install and repair roof sheathing.
1104 - Install roofing materials on shingled roofs.
1105 - Remove and replace damaged shingle(s).
1106 - Apply sealing compounds and caulking.
1107 - Install common rafters.
1108 - Install and repair roof flashings.
1200 - Stairs and Staircases
1201 - Repair stair stringers.
1202 - Repair stair risers and treads.
1203 - Install and repair a stair railing.
1204 - Layout and install a stair stringer.
1206 - Repair a balustrade.
1300 - Doors and Windows
1301 - Install a lock set.
1302 - Hang an interior door.
1303 - Cut and install molding.
1304 - Trim a door jamb.
1305 - Trim a window, stool, apron, casing, and extension jambs.
1306 - Cut a gain for butt hinges and install butt hinges.
1307 - Cut a miter using a miter saw.
1308 - Set finish nails with a nail set.
1309 - Assemble miter joints by nailing.
1400 - Interior Walls
1401 - Cut drywall with a utility knife.
1402 - Install drywall board.
1403 - Install metal corners prior to finishing drywall.
1404 - Tape and smooth drywall.
1405 - Cope an inside corner.
1406 - Miter an outside corner.
1407 - Install rubber cove base.
1408 - Repair suspended ceiling grids and tiles.
1409 - Describe installation of metal studs.
1500 - Exterior Walls
1501 - Install and repair siding components.
1502 - Install, repair, and clean gutter and spouting components.
1503 - Identify wall frame members.
1504 - Layout, cut, and install wall frame members and wall openings.
1505 - Install siding underlayments, housewraps, and flashings.

1600 - Masonry Skills

1601 - Perform masonry work.

1602 - Identify and use masonry tools.

1604 - Identify safety hazards for masonry workers.

1607 - Cut block and brick with a masonry hammer and brick set.

1611 - Strike off a block wall.

1612 - Clean mortar from block and brick work.

1617 - Identify anchors for masonry repair jobs.

1700 - Concrete

1701 - Build forms for a concrete slab.

1702 - Mix concrete.

1703 - Place a concrete slab.

1704 - Float concrete.

1705 - Finish concrete.

1706 - Patch steps and walkways.

1707 - Re-set masonry anchors.

1800 - Floor and Wall Tile

1801 - Estimate the quantity of tile needed.

1802 - Use tile terminology and determine applications.

1803 - Use adhesives and mortars.

1804 - Use tile tools and equipment.

1805 - Install various types of tile.

1900 - Residential Electrical Circuits

1901 - Apply the National Electric Code (NEC) to common installations.

1902 - Practice electrical safety.

1903 - Use electrical tools.

1904 - Interpret electrical drawings.

1905 - Identify common electrical symbols.

1906 - Use a multimeter to identify alternating current and direct current.

1907 - Identify wire sizes and ampacities.

1908 - Identify wire types.

1909 - Use connectors/wire nuts to connect or splice wire.

1910 - Dispose of fluorescent bulbs.

1911 - Change fluorescent bulbs.

1913 - Reset an electric circuit breaker.

1914 - Install a ground fault circuit interrupting outlet.

1917 - Install an adjustable bar hanger.

1918 - Install a light fixture.

1919 - Install a duplex receptacle.

1920 - Install a single pole switch circuit.

1921 - Install a split wire duplex receptacle.

1923 - Install a recessed light.

1924 - Install outlet boxes.

1926 - Install Romex to boxes.

1928 - Install a three-way switch circuit.

1929 - Install a four-way switch circuit.

1933 - Install old work boxes.

1934 - Check and replace a 24-volt transformer.

1935 - Install circuit breakers.

1937 - Perform proper grounding techniques.

1939 - Install low-voltage wiring.

1940 - Install coaxial cable for television reception.

1941 - Install cabling for computer workstations.

1942 - Replace or install a ceiling fan.

2000 - Residential Plumbing Systems

2003 - Interpret plumbing symbols.

2004 - Interpret plumbing drawings.

2005 - Identify types of pipes.

2006 - Identify plumbing pipe fittings.

2010 - Sweat solder copper pipe and fittings using propane, MAPP, or Prestolite gas.

2011 - Install and replace copper pipe and fittings.

2012 - Solvent weld polyvinyl chloride (PVC) plastic pipe.

2013 - Install and repair PVC plastic pipe and fittings.

2014 - Repair wastewater drains.

2015 - Install, replace, and repair commodes.

2016 - Install lavatories and sinks.

2017 - Hook up water supply lines and wastewater lines.

2018 - Install or replace a garbage disposal unit.

2019 - Clean and/or replace wastewater traps and pipes.

2020 - Replace and repair a faucet set.

2021 - Identify, install, and/or replace valves.

2022 - Use compression tools for copper pipe.

2023 - Install and replace Cross-linked Polyethylene (PEX) pipe and fittings.

2100 - Finishing Materials

2101 - Protect furniture, materials, and surrounding surfaces from overspray and paint spatter.

2102 - Tape door and window trim to protect from finishing materials.

2103 - Prepare a surface prior to applying a finish.

2104 - Stain wood surfaces with wiping oil stains.

2105 - Apply a finish material with a brush and a roller.

2107 - Apply oil base paints.

2108 - Apply acrylic based paints.

2110 - Clean paint brushes and rollers.

2111 - Investigate the use of high velocity low pressure (HVLP) spray painters.

2300 - Portable Circular Saws

2301 - Use a portable circular saw.

2302 - Rip stock with a portable circular saw.

2303 - Cross cut wood using a portable circular saw.

2304 - Cut miters with a portable circular saw.

2305 - Plunge cut with a portable circular saw.

2400 - Environmental Control Systems

2401 - Identify the scales on a thermometer.

2403 - Define British Thermal Unit (BTU).

2404 - Describe types of heat transfer.

2405 - Identify the components of a gas fuel heating system.

2406 - Identify the components of an oil fuel heating system.

2407 - Describe filter replacement requirements for forced air systems

2408 - Replace a thermostat.

2500* - EMPLOYABILITY SKILLS

2501* - Establish Career Goals.

2502* - Complete Job Application.

2503* - Compose Resume.

2504* - Prepare for Job Interview.

2505* - Compose Employment Letters.

2506* - Participate in Online Job Search.

2507* - Prepare Career Portfolio.

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 collegetransfer.net, 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.*

Building Property Maintenance Behavior and Safety Rules

1. You must wear safety glasses, cover goggles, or face shields after entering the shop.
2. Boots must be worn in the shop. No one **wearing sandals** will be allowed to enter any shop area. The minimum footwear must cover the entire foot.
3. Do not operate any equipment unless you are familiar with its operation and have been authorized to operate it. Questions regarding the use of equipment should be directed to the shop instructor.
4. No work may be performed using power tools unless at least two people are in the shop area and can see each other.
5. Use the shop vacuum cleaner to remove chips. Never use compressed air guns to clean clothing and hair.
6. In case of injury, no matter how slight, report it to the Instructor.
7. Contact with harmful chemicals should be reported immediately to the instructor.
8. Machines must be shut off and locked-out before servicing.
9. Do not wear ties, loose clothing, jewelry, gloves, etc. when operating shop equipment.
10. Wear appropriate clothing for the job (i.e. do not wear short sleeve shirts or short pants when welding.)
11. Do not work in the shop if you are tired, or in a hurry.
12. Never indulge in horseplay in the shop areas.
13. All machines must be operated with all guards and shields in place.
14. Do not use your bare hands to remove chips and shavings from the machine, use a brush or hook.
15. Never use a rag near moving machinery.
16. Do not strike a hardened tool or any machine with a hammer.
17. Practice cleanliness and orderliness in the shop areas. Clean up before you leave!
18. Keep the floor around machines clean, dry and free from trip hazards. Do not allow chips to accumulate. Use the shop vacuum cleaner.
19. Think through the entire job before starting.
20. Before starting a machine, always check it for correct setup and always check to see if the machine is clear.

21. Do not drink alcoholic beverages or use drugs that will alter your state of mind before or during a work session in the machine area. Do not bring food/snacks into the shop. If using medication that will affect you mentally or physically please notify the instructor

22. Don't rush or take chances. Obey all safety rules.

23. If you have not worked with a particular material before, check the materials safety data sheet (M.S.D.S.) for any specific precautions to be taken while working with the material. Also, ask the shop personnel before cutting any unusual material.

24. Heavy sanding and painting should only be done in well ventilated areas.

25. Follow all appropriate precautions when working with solvents, paints, adhesives or other chemicals. Use appropriate protective equipment. Review the M.S.D.S.

26. Check the condition of power cords and plugs on portable tools before using them. Do not use a tool that has a worn or damaged power cord/plug.

27. Always store oily rags in an approved metal container.

I have read, understand, and agree to comply with all safety policies. If I am unclear or unsure of anything I will ask the instructor before I use any industrial machinery.

Parent/ Guardian Name

_____ **Parent/ Guardian Signature**

Student Name

Student Signature

Building and Property Maintenance Tool List

Students enrolled in Building Property Maintenance will receive instruction on how to safely use the following industrial equipment. Students will be tested on the proper use of equipment and general safety. Each student must pass these safety tests with a 100% before having authorization to use the equipment. Students are expected to treat equipment with utmost respect and follow all safety guidelines immediately when entering the Building Property Maintenance classroom limits.

The following is a list of tools on which each student will receive instruction:

- Table Saw
- Horizontal Band Saw
- Vertical Band Saw
- Compound Miter Saw
- Radial Arm Saw
- Belt Sander
- Metal Lathe
- End Mill
- Drill Press
- Vertical Press
- Metal Shear/ Roller/ Pan
- Plasma Cutter
- Mig Welder
- Arc Welder
- Propane/ Acetylene Torch
- Circular Saws
- Corded/Cordless drills
- Nail Guns
- Grinders
- Reciprocating Saw
- Band Saw
- Various Hand Tools

GRADE REPORTING

Purpose: The intent of this grading procedure is to provide a student grade that accurately reflects student achievement. Progress is measured in the areas of work ethics, knowledge and the practical skills aligned to the program area learning guides. Student performance for learning guide activities and assignments are reflected in the knowledge grade. Students will be evaluated according to established program standards on an individual basis. The student information system automatically calculates student grades using the following formula:

Work Ethic	40%
Knowledge	<u>60%</u>
	100%

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

Interpreting a Grade:

Work Ethics Grade (40%): Each school day, every student receives a Work Ethics or daily grade. Criteria that compromise these grades are safety, student behavior, preparation/participation, productivity or time on 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 student's 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 can reflect a deduction in points earned for that class period. 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.

Skill (Learning Guide): A task list guides every RMCTC program. Tasks are evaluated on a scale with a 4 or 5 considered proficient. Learning guides are normally aligned to lab assignments or shop projects where a student will physically perform a task. The student and teacher will discuss, at the beginning of each quarter, student expectations and the required tasks that must be completed or "contracted" by the end of the marking period. This allows a student to work productively with the expectation to make constant progress during the marking period. All assignments, activities and rubrics associated with learning guides are documented in the "knowledge" grading component. It is important to note that poor productivity will have a negative impact on a student's grade.

NOTE: For the purpose of students earning a job title associated with their program area, 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.

Student grades will be reflected as a percentage, and will be reported directly to the student's sending school to be added to the report cards.

Final Grade average is based on the student's four (4) numerical marking period grades.

If a student has three (3) marking period grades of "F" consideration will be given 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 may be asked to select a new program or return to the sending school on a full-time basis.

The individual teacher must evaluate each student's achievements 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 failures. **Blatant refusal** to attempt or to complete a significant number of course requirements may lead to poor performance and possible removal.

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.

B = Good

1. This grade represents **above average** 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 **satisfactory** achievement.
2. The average student **has reached a majority of course objectives.**
3. The average student is cooperative and follows direction, yet extra effort and improvement are needed for more complete mastering of the material.

D = Passing

1. This grade represents a **minimally satisfactory** achievement.
2. The failing student **has not reached necessary 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 **unsatisfactory** achievement.
2. The failing student has **not reached necessary course objectives.**

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. 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 are not merely satisfying a short-term or unrealistic desire.

Attendance and its Impact upon Grades: The importance of regular school attendance and its positive impact upon students' 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.

Makeup Work for Absences: Students have the opportunity to make-up schoolwork due to an illness/being absent from school. Students must submit make-up work within the following timelines:

1. One (1) to three (3) days excused absence – five (5) school days to complete assigned work.
2. Four (4) or more days excused – ten (10) school days to complete assigned work. All work missed through unexcused absences will be graded zero (0).

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 classes. Students will also receive a report card from RMCTC reflecting their program grade and Social Studies grade, where applicable. In addition, grades are available on the parent portal.

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

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 hands-on 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.

Home Builders of America (HBA)



<http://www.pabuilders.org/>

The purpose of the HBA Student Chapter Program is to give students first hand exposure to the "real world" of the building industry and an invaluable complement to their academic studies.

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 and sign up for the school Remind App before starting the job/internship. Any student who is 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 **NOT** 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.
 - **IMPORTANT**: If your name is going to appear, for any reason, on your sending school absentee list, you must also **report off to Mrs. Albarran @ 610-921-7301. Failure to report off may 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 not scheduled, you can work additional hours if your employer allows you to work. Labor Laws need to be followed.
 - 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 or the first day, you are at RMTC for the month**, you must report to the **Work Based Learning Office**, where you will sign in with Mrs. Hughes. Co-op students will record hours and earnings, and then return to your program area for the remainder of the school day. **Do not forget to bring your check stubs to record your hours and earnings!** Internship students will record hours. **If you miss two monthly 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. Upon your first week of work, obtain a contact number in case you need to call your supervisor.
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