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## **The Diesel Truck Technology Program**

**CIP 47.0613**

Instructor: Michael Merkel

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Have Questions?

Contact: Mrs. Donna Henderson – School Counselor  
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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



Dear Parent,

Your child is currently enrolled in the Diesel Truck Technology Instructional Program at the Reading Muhlenberg Career & Technology Center. I am Michael Merkel, the instructor of the Diesel Truck Technology Program, and I would like to explain what is required of the students in my shop.

Each student receives a quarterly grade based on shop work (40%) and test and quiz grades (30%). The general grading scale is on the attached page. The shop grade consists of 10 points a day, which the student receives when he/she attends class. Therefore, each student begins his/her day with an "A". If a student is absent he/she loses the points for failing to do work that day. The points can also be lost for the reasons listed on the attached page.

Each student has a notebook, which should be brought home to study for the tests. I will be going over approximately one unit a week and the class will have one quiz and a test each week. I present the material in a theory session using demonstrations, illustrations, and actual objects or parts. The students have an opportunity to ask questions if they do not understand. This work is reinforced by lessons in the textbooks. I give the students the test questions ahead of time, so there is no reason for a student not to pass the test with an 85%, which is what I require to show competency. Also, I may require a written report during the school year, which would be used as an exam grade and be placed in his/her student portfolio. Your son/daughter will have ample time to prepare the paper and should be working on it at home and in the library.

I am attempting to do all that I can to help your son/daughter grasp the concepts and work habits necessary to gain an entry-level position in the diesel mechanic field upon graduation. In return I expect, from him/her, a positive attitude, good attendance, preparation for shop, and a willingness to learn and work.

I am counting on your support. If you would like to discuss your child's future success in the program or schedule a time to come to the Career & Technology Center and meet with me, please feel free to contact me by phone at 921-7300 or by email at [mgmerkel@rmctc.org](mailto:mgmerkel@rmctc.org). I will be contacting you as the need arises to discuss your child's progress. You, as a parent, play a major role in your child's educational success. You know his/her strengths and weaknesses; as a team, I feel that we can help assure that his/her educational experience at Reading-Muhlenberg is a positive one. I hope to meet you at the Career & Technology Center Open House.

Sincerely,

Michael Merkel



# Diesel Truck Technology

- Receive training in order to obtain your PA State Inspection certifications in auto/light truck, heavy truck/trailer, and emissions.
- Prepare for a future in the diesel powered Industry, whether it is medium or heavy duty trucks, tractor, or construction equipment.
- Develop the skills necessary to obtain knowledge to perform on- and off-vehicle repairs needed in the diesel repair Industry.
- Utilize computers in the shop to diagnose problems on vehicles and how to repair them.



## Job Titles – Career Pathways

- 41-2022 Parts Salespersons
- 49-3023 Automobile Service Technicians & Mechanics
- 49-3031 Bus and Truck Mechanics and Diesel Engine Specialists
- 49-3041 Farm Equipment Mechanics
- 49-3042 Mobile Heavy Equipment Mechanics, Except Engines
- 49-3092 Recreational Vehicle Service Technicians
- 49-3093 Tire Repairers and Changers
- 53-6051 Transportation Inspectors
- 53-7061 Cleaners of Vehicles and Equipment
- LOCAL Service Specialist

**CTC knowledge transfers to college credits at:**  
Johnson College  
Lincoln Technical Institute  
Pennsylvania College of Technology

## Student Certifications

NOCTI – National Occupational Competency Testing Institute Certification  
\* Diesel Technology  
Pennsylvania State Safety Inspector Certification, Cat I  
Pennsylvania State Safety Inspector Certification, Cat III  
Pennsylvania State Emissions Inspector Certification S/P2  
Valvoline Motor Oil Specialist Certification  
Section 609 Certification for Refrigerant Recycling and Recovery



## Accreditations

NATEF – National Automotive Technicians Education Foundation



## **Instructor – Mr. Michael G. Merkel**

### **Biography**

Being a lifelong learner has allowed me to become a Master Mechanic on any engine, big or small. Throughout my life I have strived to learn as much about the theory and operations of all engine types. During high school, I attended the Automotive/Diesel Technology course at Berks Vo-Tech East and graduated from Automotive Technology Advanced Class III.

After a few years working in the field, I enlisted in the United States Marine Corps. There I was an I-Level Technician for the T-400 Huey and T-700 Cobra Turbo-Shaft engines. This led to being a Test Cell Operator. After my tour of duty I went back into the diesel field. I then was given an opportunity to teach at RMCTC for two years as the Motorcycle, Marine and Small Engine instructor before returning to the diesel field for the past twelve years. I enjoy sharing the knowledge and work ethic I have learned throughout my career as a technician and a marine. Altogether, I have more than 20 years of experience working in the diesel technology field.

### **Education**

Associate's Degree, Information Technology, Kaplan University

### **Certifications and Awards**

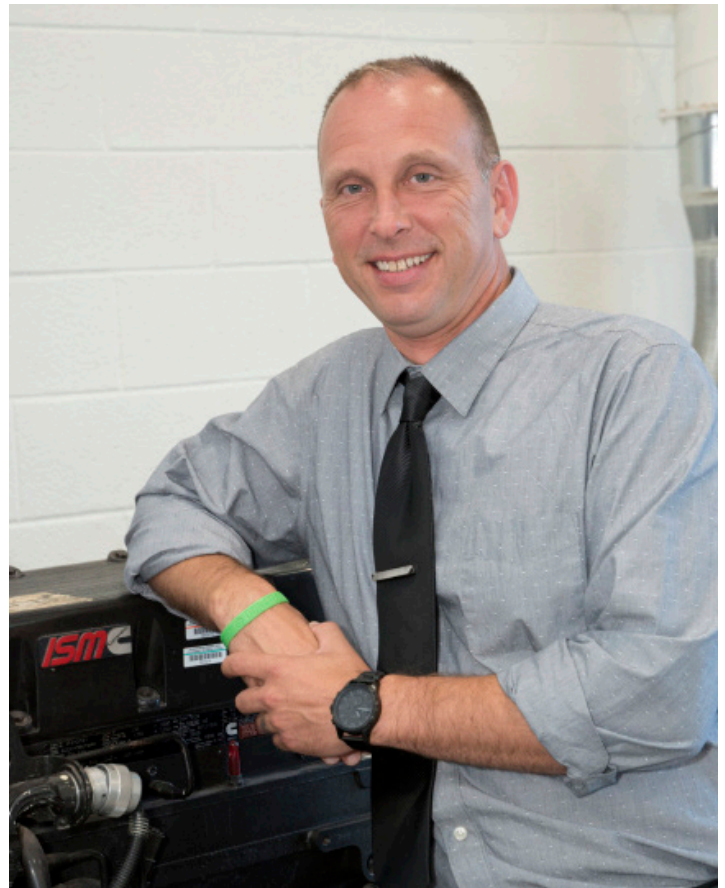
T-400/T-700 Turbo-Shaft Engine Rebuild/Repair –  
United States Marine Corps  
Cummins Engine/Electrical/Mechanical Specialist  
Cat Engine/Electrical/Mechanical Specialist  
Perkins Engine/Electrical/Mechanical Specialist  
Isuzu Engine/Electrical/Mechanical Specialist  
Ford 6.0/6.4/6.7 Diesel Engine/Electrical  
Certifications  
Ford Electronics and Troubleshooting  
Certified Class 7 Truck, Car and Trailer Inspection  
Mechanic  
Fork-Lift Trainer Certificate/Operator

### **Work Experience**

Diesel and turbo-shaft engine technician experience of more than 20 years.

### **Hire Date**

2017





## Program Planning Tool

Program Title: **CIP 47.0613 DIESEL TRUCK TECHNOLOGY**

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: Pennsylvania State Safety Inspection Certification, Pennsylvania State Emissions Inspection Certification, Valvoline Motor Oil Specialist Certification, S/P2, and 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 by using learning guides in a self-directed manner. Working in the laboratory, students will be required to use hand tools, hydraulic lifts, chemicals, heavy equipment, welding equipment, cutting tools and power tools.
- The laboratory can have very high noise levels at times. Due to the amount of dust and fumes, students with allergies, asthma and/or other respiratory conditions should not consider this program of study or profession without consulting with a physician. 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 50% of their time in classroom theory and 50% of their time doing laboratory applications and live work.
- 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 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 and most technical manuals are written at a higher level and are accessed on line.
- 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
<b>Program Completion</b> – 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.		
<b>Reading and Language Arts Level-</b> Text and manuals written on a 10 <sup>th</sup> -11 <sup>th</sup> grade reading level. Proficient on end-of-course exam (Keystone). Reading comprehension requires understanding written sentences and paragraphs in work related documents. Certification exams require reading, writing and comprehension of English. Ability to read and understand service and technical manuals. NOCTI assessment and industry certification exams require a proficiency in English language skills		
<b>Math Level</b> - At grade level and proficient on end-of-course exam (Keystone). Knowledge of arithmetic, algebra, geometry and their applications.		
<b>Aptitude</b> – Mechanical aptitude, oral comprehension and expression, active listening, analytical thinking, attention to detail, deductive and inductive reasoning, problem solving and trouble shooting skills.		
<b>Safety &amp; Physical</b> – Manual dexterity; fine motor skills; hand-eye-body coordination; frequent standing bending and lifting required; high degree of self-discipline 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. Safe operation of industry-grade tools and equipment. Ability to lift 50 lbs.		
<b>Interpersonal/ Social</b> – Integrity, self-control, cooperation, as well as the ability to work independently with little or no supervision. Ability to work in a team.		
<b>Other Occupational/Program Considerations</b> - Ability to work independently and read and follow directions. Stamina needed to stand for long periods of time. Good attention to detail. Environment with several sensory inputs, dust and fumes, loud and sometime startling noises, ongoing background noise, moving people and vehicles.		

# Scope and Sequence Diesel Truck Technology 47.0613

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.

	Secondary School				Postsecondary Institution			
Subject (Hours)	Grade 9 (Hours)	Grade 10 (Hours)	Grade 11 (Hours)	Grade 12 (Hours)	First Semester	Second Semester	Third Semester	Fourth Semester
Technical		Demonstrate Shop Safety	Inspect/Service air induction, exhaust & cooling	Conduct preventive maintenance	DSM 108: Tools, Hardware and Failure Analysis	DSM 117: Introduction to Hydraulics	DSM 240: Electronic Fuel Systems Operation/Diagnostic	DSM 258: Vehicle Electronics/Diagnostic Procedure
		Operation of Diesel Engines	Service fuel systems	Inspect & Service Brakes	DSM 115: Diesel Engines	DSM 140: Truck Tractor Chassis and Alignment	DSM 241: Diesel Electronic Systems	DSM 268: Truck & Trailer Refrig Systems
		Engine Compartments	Understand computer controls & related electrical	Inspect & Service Suspension & steering system	DSM 116: Diesel Engines Laboratory	DSM 141: Heavy Duty Brake Systems	DSM 242: Diesel Equipment Air Conditioning Systems	DSM 274: Equipment Maintenance Management
		Service Lubrication	Inspect & Service Electrical Systems	Certification - State Inspection	DSM 119: Fuel Systems	DSM 142: Power Train and Brake Systems Lab	DSM 245: Allison Transmissions	DSM 275: Automated Power Train Products
		Identify Fastener, Test Equipment & Service Tools	Service starting, charging & lighting system	Certification - State Emission Inspection				
		Engine Calculations & Related Math	Battery service	Job Seeking/Keeping Skills				
		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 I	ENL 201: Technical & Professional Communication
Math	Algebra I	Geometry	Algebra II	Trigonometry	MTH 124: Technical Algebra & Trig I			
					MTH 190: 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:HUM/SSE/ART/FOR/AAE
Other	Physical Education	Physical Education	Physical Education	Physical Education		DSM 120: Basic Electricity	FIT: Elective: Fitness	
	Health	Health	Driver's Ed Theory					



# 47.0613 Medium/Heavy Vehicle and Truck Technology/Technician

## **ORIENTATION AND SAFETY**

Explain diesel occupations and certification programs.  
Identify truck classifications and configurations.  
Use service manuals and online service information.  
Follow safety procedures and safe equipment operation.  
Follow EPA standards for cleaning and disposal of waste and fluids.  
Exhibit professional/personal standards and work habits/ethics in a diesel shop.  
Comply with OSHA regulations.

## **TOOLS AND FASTENERS/HARDWARE**

Identify and use basic hand tools and power tools.  
Identify and use fasteners fittings and hardware.  
Drill and use threading tools and extractors.  
Identify and use fractional and precision measuring tools both standard and metric.  
Set up/Shut down cut and heat with Oxy-Acetylene Torch.

## **SUSPENSION AND STEERING SYSTEMS**

Inspect repair or replace steering linkage.  
Inspect and adjust basic wheel alignment/inspect tires.  
Inspect test/service power steering system.  
Service wheel bearings and hubs according to TMC Guidelines.  
Inspect or replace shock absorbers.  
Inspect or replace king pins.  
Inspect or replace leaf springs.  
Inspect repair or replace air suspension components.  
Inspect and service wheel assemblies.

## **PREVENTIVE MAINTENANCE**

Determine preventive maintenance intervals and procedures.  
Perform preventive maintenance inspection.

## **BRAKE SYSTEM**

Inspect repair or replace hydraulic disc brake components.  
Inspect repair or replace hydraulic drum brake components.  
Inspect repair or replace S-cam drum brake components.  
Inspect replace and/or adjust air governors.  
Replace hydraulic brake lines/bleed brakes.  
Inspect repair or replace air brake lines.  
Inspect diagnose or replace air brake chambers.  
Inspect diagnose or replace master cylinder and hydraulic system components.  
Diagnose repair or replace ABS components.  
Inspect repair or replace air brake valves.  
Inspect repair or replace air dryers.  
Inspect repair or replace air disc brake components.  
Inspect replace and adjust slack adjusters.

## **DIESEL ENGINES**

Explain diesel engine operation and identify parts.  
Remove inspect and install camshaft and valve train components.  
Remove inspect and install piston connecting rod and liner.  
Remove inspect and install crankshaft and bearings (mains and rods).  
Replace engine oil seal.  
Perform diesel tune-up (set overhead).  
Remove inspect and install cylinder head and gasket.  
Remove inspect and install oil pump.  
Remove inspect and install vibration dampener and flywheel.

## **AIR INTAKE AND EXHAUST SYSTEMS**

Inspect repair or replace air induction system components.  
Inspect repair or replace exhaust system and components.  
Inspect or replace charge air-coolers and after coolers.  
Inspect repair or replace turbocharger.

## **COOLING SYSTEMS**

Inspect/replace belts and pulleys.  
Inspect/replace hoses and clamps.  
Test/replace thermostat.  
Drain flush refill and bleed cooling system.  
Test anti-freeze and supplemental coolant additives.  
Inspect/replace water pump.  
Test/inspect/repair fan drives.  
Inspect pressure test cooling system components.

### **FUEL SYSTEM**

Replace fuel filters/strainers.  
Inspect/replace fuel lines tank cap and fittings.  
Prime and bleed fuel system.  
Perform fuel supply and return system tests.  
Remove and install injector/nozzle.

### **ELECTRICAL/ELECTRONIC SYSTEM**

Test/service battery.  
Test/replace/adjust bulbs and lamps.  
Diagnose repair/replace electrical circuits and components.  
Test starting system and replace component assemblies.  
Test charging system output and replace component assemblies.  
Analyze and interpret wiring diagrams.  
Perform computer systems tests and analyze codes.

### **DRIVE LINE**

Diagnose replace and adjust drive-line components.  
Perform clutch/clutch brake maintenance and adjustment.  
Remove and install clutch assembly.  
Remove and install transmission.

### **VALUE ADDED**

80.1 - Establish Career Goals.  
80.2 - Complete Job Application.  
80.3 - Compose Resume.  
80.4 - Prepare for Job Interview.  
80.5 - Compose Employment Letters.  
80.6 - Participate in Online Job Search.  
80.7 - 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](http://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.*

Dear Parent/Guardian:

The Diesel Truck Technology (DTT) program has a strict dress code that all students must participate in for safety of all our students.

**Our dress code is as follows:**

1. Work boots (steel toe required).
2. Dark blue button down work shirt (short or long sleeves).
3. Dark blue work pants or coveralls.
4. During hot weather, plain dark blue T-shirts are acceptable.
5. No hats or jewelry in shop area.

All items can be purchased at Wal-mart, Target, Sears, etc.

Please note that failure to follow our dress code will negatively affect your child's grade. Safety is our #1 priority. Safety glasses and shields will be supplied by our school.

There will be no exceptions to this code. If you encounter any problems finding safety uniforms, please feel free to call me at 610-921-7300, ext. 7404.

Students will have until September 7, 2017 to have all required safety/uniform requirements.

Thank you,

Mr. Michael G. Merkel  
Diesel Truck Technology Instructor

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I have read the above information and fully understand the importance of safety in the shop.

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Printed Student Name & Date

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Student Signature

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Printed Parent/Guardian Name & Date

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Parent/Guardian Signature

# DTT – Shop Rules/Policies Revised 6/2009

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## I. General:

### SAFETY FIRST!

#### 1. HORSEPLAY IS HIGHLY FORBIDDEN!!!!

#### 2. Do not sit at instructors' desks 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 at the discretion of the 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 wall hooks.

\*\*\* 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.

# DTT – Shop Rules/Policies Revised 6/2009

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## II. School Property/Equipment:

**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. Defacing school property is forbidden**
- 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 or defective equipment to instructor or staff**
- 7. Do NOT operate equipment without the instructor's permission**

## III. Classroom:

- 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. ALL 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 doorway or in the hall
  - Instructor and/or staff has the ultimate say when students are dismissed! (See student handbook)



# **DTT – Shop Rules/Policies**

Revised 6/2009

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## **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 or 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 needed by students MUST be signed out and returned before leaving for Social Studies, or at 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 reviewed and are understood.**

\_\_\_\_\_  
**Signature: Parent/Guardian**

\_\_\_\_\_  
**Date:**

\_\_\_\_\_  
**Signature: Student**

\_\_\_\_\_  
**Date:**

## **GENERAL GRADING SCALE**

A = 91.0 to 100

B = 82.0 to 90.9

C = 73.0 to 81.9

D = 65.0 to 72.9

F = 64.9 and below

## **POINTS ARE DEDUCTED FOR THE FOLLOWING:**

### **ABSENT - NO POINTS FOR THE DAY**

#### **INSUBORDINATION**

- \* REFUSAL TO WORK
- \* PRESENCE IN AN UNAUTHORIZED AREA
- \* NOT FOLLOWING DIRECTIVES REGARDING  
WORK ACTIVITIES

#### **SAFETY VIOLATIONS**

- \*HORSEPLAY/DISRUPTIVE BEHAVIOR
- \*WORKING UNSAFELY

#### **PREPAREDNESS**

- \*LACK OF PROPER WORK CLOTHING
- \*LATENESS

#### **UNACCEPTABLE LANGUAGE**

To insure proper communication between the parents and myself I am asking that you complete this form, including a phone number where I can reach you during the day/evening. I will be contacting parents to discuss these letters and answer any questions you might have about your child's progress.

Please complete this form and return it to school with your son/daughter.

Signature\_\_\_\_\_ Phone \_\_\_\_\_

Most convenient time to be reached\_\_\_\_\_

Student Name\_\_\_\_\_

(Print)

## 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 ClassMate grading software automatically calculates student grades using the following formula:

$$\begin{array}{rcl} \text{Work Ethic} & 40\% & \\ \text{Knowledge} & \underline{60\%} & \\ & 100\% & \end{array}$$

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 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.

**Skill (Learning Guide):** A task list guides every RMCTC program. Tasks are evaluated on a 0-5 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.

### CTC Letter Conversion Table

<u>Grade</u>	<u>Letter</u>
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

## **GRADE REPORTING (continued)**

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.

### **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 directions, 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 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 **unsatisfactory** achievement.
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

## **GRADE REPORTING (continued)**

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.

**Attendance and its Impact upon Grades:** 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.

**Make up Work for Absences:** Students have the opportunity to make-up school work due to an illness/being absent from school. **PROVIDED** their absence is excused. 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. (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 classes. 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.

### **National Technical Honor Society (NTHS)**



[www.nths.org](http://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:**
    - 1<sup>st</sup> violation – VERBAL WARNING**
    - 2<sup>nd</sup> 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.

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STUDENT SIGNATURE

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PARENT/GUARDIAN SIGNATURE