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| **Precision Machine Technology (PMT)****48.0501** |
| **Objective of Technical Education-** * Upon successful completion of this program, students will be prepared for an entry level position in the field of machining.
* Students are offered the opportunity to acquire the technical knowledge and skills related to shaping metal parts.
* Students learn required safety practices and procedures.
* Students will be offered instruction pertaining using machinery and tools; reading/monitoring gauges and dials; raw materials, production processes, quality control and costs; and the design, repair and maintenance of machinery and tools.
* Students will fabricate and modify parts, or make and repair machine tools.
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| **PROGRAM SAFETY REQUIREMENTS** | * SAFETY GLASSES (1 pair provided)
* HIGH TOP WORK BOOTS
* DICKIES WORK PANTS AND SHIRT (DARK COLOR)($20+ EACH)
* WORK GLOVES (1 pair provided)
* IMPULSE/SELF-CONTROL
* ABILITY TO REMAIN IN WORK SPACE
* ABLE TO USE MACHINERY SAFELY
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| **APTITUDES, ABILITIES/SKILLS** | * ABLE TO STAND AT WORK BENCH/AREA FOR EXTENDED PERIODS OF TIME.
* MUST BE MOTIVAED TO STUDY AND MEMORIZE DECIMAL AND FRACTION MEASUREMENTS NEEDED TO COMPUTE MEASUREMENTS AND DIEMNSIONS NEEDS TO OPERATE MACHINERY.
* ABLE TO TOLERATE LOUD MACHINES, VOICES, AND BANGING NOISES
* ABLE TO TOLERATE DUST AND FUMES
* ABILITY TO START, MAINTAIN AND COMPLETE TASKS AND MATH PREPARATION, PRIOR TO APPLYING IN THE LAB
* PROBLEM SOLVING AND INNOVATIVE SKILLS
* INDEPENDENCE
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| **ACADEMIC SKILLS****READING** **MATH** **SCIENCE**  | * TEXT BOOK READING LEVEL 10TH GRADE
* TEACHER-MADE PRESENTATIONS, ONLINE MATERIALS AND RESOURCES ARE USED
* MATH SKILLS- CALCULATING AND COMPUTING DECIMALS AND FRACTIONS (BY PENCIL/PAPER) TO IDENTIFY DIMENSIONS, TUNING AND SPEEDS OF MACHINES.
* DEMONSTRATE PROBLEM SOLVING SKILLS
* GEOMETRY
* CALCULATE COSTS
* LONG HAND DECIMAL DIVISION, ADDITION, MULTIPLICATION AND SUBTRACTION
* NOTE TAKING WRITING SKILLS
* ARITHMETIC, ALGEBRA, GEOMETRY, CALCULUS, STATISTICS, AND THEIR APPLICATIONS
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| **PHYSICAL REQUIREMENTS** | * STAND FOR LONG PERIODS OF TIME
* EYE HAND COORDINATION
* HAND AND ARM STEADINESS AND POSITIONING
* FINGER AND MANUAL DEXTERITY
* ABILITY TO LIFT AND LOWER ARMS
* MAINTAIN VISUAL FOCUS ON MACHINE AND PROJECT
* PAY CLOSE ATTENTION TO DETAILS
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| **SOFT SKILLS** | * COOPERATE & COMMUNICATE WITH OTHERS
* FACE TO FACE DISCUSSIONS
* ABILITY TO WORK WITH OTHERS TO SHARE IDEAS AND SOLVE PROBLEMS TOGETHER
* DEPENDABILITY
* INDEPENDENCE
* LISTEN, ASK QUESTIONS, AND NOT INTERRUPT OTHERS
* LISTENING AND READING COMPREHENSION SKILLS
* MEMORIZATION SKILLS
* PROBLEM SOLVING SKILLS
* USE TIME WISELY
* REMAIN IN WORKSPACE
* CONDUCT ONESELF MATURELY
* ACCEPT DIRECTIVES & CONSTRUCTIVE CRITICSM
* ORGANIZATION SKILLS (FOR NOTES TO REFER TO)
* MEET DEADLINES
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| **CLASSROOM ASSIGNMENTS,****ASSESSMENTS & TASKS** | * CLASSWORK/HOMEWORK
* TEACHER MADE TESTS/QUIZZES
* COMPREHENSION CHECKS (VERBAL AND WRITTEN)
* PROJECT (START TO COMPLETION)
* NOCTI (END OF 12TH GRADE)
* BENCHMARK ASSESSMENTS (PRE-NOCTI)
* TASK LIST- PROGRAM OF STUDY
* GOOGLE CLASSROOM ASSIGNMENTS
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| **INDUSTRY CERTIFICATIONS** | * OSHA Certification
* NIMS
* SKILLS USA
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| **PROGRAM UNIFORM/COSTS/MATERIALS** | * HIGH TOP WORK BOOTS
* DICKIES (or jeans and t shirt) WORK PANTS AND SHIRT (DARK COLOR) ($20+ EACH)

WORK GLOVES (1 pair provided)* SAFETY GLASSES (1 PAIR PROVIDED)
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| **ARTICULATION AGREEMENTS** | * LCCC
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| **COOPERATIVE OPPORTUNITIES** | * BASED ON JOB AVAILABILITY, TEACHER RECOMMENDATION, GRADES OF 77% AND HIGHER, GOOD ATTENDANCE, GOOD BEHAVIOR, DRIVER’S LICENSE AND OWN TRANSPORTATION
* *PARTNERS:* BTM, BLUE MOUNTAIN MACHINE, McADOO MACHINE, TPEI
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| **EMPLOYMENT OUTLOOK & PROJECTED SALARY** | * EMPLOYMENT OPPORTUNITIES: MANUFACTURING, COMPUTER NUMERICALLY CONTROL TOOL OPERATOR, LATHE AND TURNING MACHINE TOOL SETTER, MILLING AND PLANING MACHINE SETTERS, OPERATORS, AND TENDERS METAL AND PLASTIC, MULTIPLE MACHINE TOOL SETTERS, OPERATORS AND TENDERS, TOOL AND DIE MAKERS
* MEDIAN PA WAGES= $22.95 hourly, $47,730 annual
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| **How to find out more?** | * https://www.onetonline.org
* [www.carboncti.org](http://www.carboncti.org)
* <https://youtu.be/NR3GZKgXtmU>
* <https://www.onetonline.org/link/summary/51-4041.00>
* [National Institute for Metalworking Skills](https://www.nims-skills.org/)
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