

# TENNESSEE COLLEGE OF APPLIED TECHNOLOGY PULASKI

1233 East College Street, Pulaski, TN 38478 931-424-4014 www.tcatpulaski.edu

### **CNC MACHINING TECHNOLOGY**

The mission of the CNC (Computer Numerical Control) Machining Program is to provide the student with a broad range of experience of all machine tools that one will come in contact with after graduation and throughout their career. Machinists, tool and die makers, industrial maintenance employees and machine operators all require skills in the machining of metal by machine tools. The CNC Program includes instruction relating to safety, blueprint reading, mathematics, manual milling and turning machines, drill presses, grinders, wire EDM machines, CNC lathes, and CNC milling equipment. Other areas include layout work, precision measuring and metallurgy. A wide range of opportunities await graduates of the CNC Machining Technology Program.

#### **Employment Opportunities:**

- Machine Shops
- Tool and Die Maker
- Industrial Maintenance

#### Program Instructor: David Kimbrell david.kimbrell@tcatpulaski.edu 931-489-5974

<b>ENROLLMENT INFORMATION</b>		
Classes Offered:	Full-Time: Monday- Friday 8-2:30 Part-Time: Monday-Friday 8-11 or 11:30-2:30	
Program Length:	1,728 Hours (4 Trimesters)	
Program Location:	Northfield Instructional Service Center 5000 Northfield Lane, Spring Hill, TN 37174	
Program Cost including Tuition, Fees plus Books/Supplies:	\$1,312 per trimester x 4 trimesters=5,248 \$1,879 Books/Supplies; Total Cost \$7,127* *These costs are subject to change	
Requirements:	Complete the Admissions Process Checklist	
Financial Aid:	Available to those who qualify	

For more information about our graduation rates, the median debt of students who completed the program, and other important information, please visit our website: www.tcatpulaski.edu

Tennessee College of Applied Technology-Pulaski does not discriminate on the basis of race, color, religion, creed, ethnicity or national origin, sex, disability, age status as a protected veteran or any other class protected by Federal or State laws and regulations and by Tennessee Board of Regents policies with respect to employment, programs, and activities. The following person has been designated to handle inquiries regarding non-discrimination policies: Mike Whitehead, President; mike.whitehead@tcatpulaski.edu; 931-424-2420. The TCAT-Pulaski policy on non-discrimination can be found at www.tcatpulaski.edu.

Career Training Administrative Office Technology

Advanced Manufacturing Education **Building Construction** Technology **CNC** Machining Technology **Computer Operating Systems** and Network Technology **Electrical and Plumbing Construction Technology** HVAC/R **Industrial Electricity Industrial Maintenance** Technology Patient Care Technology/ **Medical Assisting Pharmacy Technology Practical Nursing Residential/Commercial** Wiring and Plumbing Welding Technology

Campus Locations Lawrenceburg Instructional Service Center North Lawrence Instructional Service Center Northfield Instructional Service Center South Lawrence Instructional Service Center

Accredited Member Commission of the Council on Occupational Education 7840 Roswell Road, Building 300 Suite 325 Atlanta, GA 30350 Phone: (770) 396-3898 \* (800) 917-2081

## **CNC Machining Technology Course Outline**

First Trimester	
Worker Characteristics	6 Hours
Orientation Safety Alcohol Education and Haven Training	6 Hours
Technology Foundations	24 Hours
Related Mathematics	45 Hours
Basic Blue Print Reading	60 Hours
Shop Safety	15 Hours
Hand Tools	20 Hours
Measuring Tools	10 Hours
Drill Presses and Sharpening Drills	20 Hours
Materials and Heat Treating	10 Hours
Layout	20 Hours
Preparation for Machining Operators	10 Hours
How to Use the Haring Speed and Feed Calculator	10 Hours
Sawing Machines	16 Hours
Turning Machines	20 Hours
Tool Materials and Single Point Cutting Tools	10 Hours
Manual Lathe Projects	85 Hours
Milling Cutters and Milling	25 Hours
Tramming Milling Head and Vise	20 Hours
Pass Measurement Materials and Safety Certification (NIMS)	432 Hours

Second Trimester	
Worker Characteristics	6 Hours
Manual Mill Projects Combined with Lathe Projects	180 Hours
Grinding and Abrasive Machining Processes	30 Hours
Advanced Blue Print Reading	50 Hours
Advanced Mathematics	50 Hours
Advanced Machining Processes	10 Hours
Wire EDM Basic Machine Functions	23 Hours
Wire EDM Projects	63 Hours
EDM Die Sinking	20 Hours
Pass Job Planning, Benchwork & Layout Certification (NIMS)	
Production Machine Tender Certificate	864 Hours

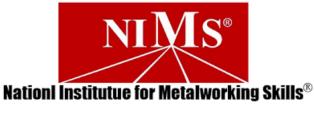
please see curriculum continued on page 3

For More Information, Please Contact: Student Services Department P.O. Box 614, Pulaski, TN 38478 931-424-4014 Accredited Member Commission of the Council on Occupational Education 7840 Roswell Road, Building 300 Suite 325 Atlanta, GA 30350 Phone: (770) 396-3898 \* (800) 917-2081

## **CNC Machining Technology Course Outline**

Third Trimester	
Worker Characteristics	6 Hours
Basic CNC Programming	105 Hours
CNC Lathe Machine Functions	53 Hours
CNC Lathe Projects	150 Hours
Manual Lathe and Mill Projects	118 Hours
Machine Set-Up Operator Certificate	1296 Hours

Fourth Trimester	
Worker Characteristics	6 Hours
Geometric Dimensioning and Tolerance	64 Hours
Master Cam and CNC Communications	120 Hours
Master Cam Generated Programs for CNC Machines	134 Hours
Comprehensive Practical Applications	48 Hours
Internship/Final Project	60 Hours
Machinist I Diploma	1728 Hours



### NIMS ACCREDITED PROGRAM

For More Information, Please Contact: Student Services Department P.O. Box 614, Pulaski, TN 38478 931-424-4014 Accredited Member Commission of the Council on Occupational Education 7840 Roswell Road, Building 300 Suite 325 Atlanta, GA 30350 Phone: (770) 396-3898 \* (800) 917-2081