



MAKE THE TOOLS THAT  
KEEP AMERICA RUNNING

# Machining & Manufacturing Technology

**WASHBURNTECH**  
UNIVERSITY

[MANUFACTURING]

A career as a machine tool technician is for students who enjoy using their hands to make something work. Our graduates apply their knowledge and skill to plan, manufacture, assemble, test and repair parts as well as mechanisms and machines. If you are a good problem-solver and like a challenge, this career is for you.

### LEARNING AT WASHBURN TECH

In this program, you will learn to read technical information on blueprints along with sketching, angles, tapers, gearing and precision measuring. Instruction also includes hands-on training in the operation of machine tools, such as the engine lathe, milling machine, surface grinder, drill press, computerized numerical control milling machine and computerized numerical control lathe. Attending full-day, you can complete the program in two semesters, while high school and half-day students can finish in four semesters. Students have the option of completing 48-credit-hour Cert C or a 23-credit-hour Cert A. Cert C completers may be eligible to complete an associate or more advanced degrees at Washburn University.

### JOB AND SALARY OUTLOOK

Labor experts predict jobs will open in this field as baby boomers retire. Job candidates who can operate multiple machines have the

best opportunities for employment and advancement. The average entry-level salary for a machinist is \$16.35 an hour or \$34,000 annually, according to the Kansas Department of Labor. The average is \$21.83 an hour or \$45,400 annually.

### ENTRY REQUIREMENTS

For dual-credit high school students submission of an application, official partial transcript, and consent to enroll form are required. Adult students must complete an application and submit an official copy of all transcripts. Please see an admissions counselor for details.

### CERTIFICATIONS

- + NC3 Starrett Certified
- + OSHA-10



## Build your best self.

TALK TO AN ADMISSIONS  
COUNSELOR TODAY!

785.670.2200

### CAREERS AS A MACHINIST »

- + auto machinist
- + die maker
- + CNC machinist
- + gear machinist
- + jig bore tool maker
- + factory maintenance
- + manual lathe machinist
- + metal die finisher

# Machining & Manufacturing Technology

## COURSE DESCRIPTIONS

### SAFETY/OSHA-10\*

Focuses on job/site safety and precautions

### PRINT READING\*

Identification of basics used in blueprints

### MACHINING I\*

Conduct job hazard analysis for conventional mills/lathes

### MACHINING TOOL PROCESSES\*

Analyze blueprints to layout parts and materials

### LATHE/MILL/GRIND\*

Analyze blueprints to layout parts and materials

### MACHINING II\*

Perform basic trigonometric functions

### QUALITY CONTROL & INSPECTION\*

Explore the science of dimensional metrology

### WORKPLACE ETHICS\*

Study human relations in today's workplace

### METALLURGY\*

Covers metallurgical terms and definitions

### BENCH WORK\*

Learn and practice bench work skills

### CNC OPERATIONS\*

Covers the history of Computer Numerical Control (CNC)

### LATHE/MILL/GRIND II

Set up and operate lathes, milling machines & grinders

### CAD/CAM 1

Introductory course to Computer-aided Drafting and Computer-aided Manufacturing.

### CNC MILLING 1

Practical experience in setting up and performing basic operations on CNC Milling machines

### MACHINING III/IV

Expand on earlier course

### MACHINE TOOL SPECIAL PROJECTS OR MACHINE TOOL INTERNSHIP

Apply machining principles in projects or internships

### PRINT READING II

Expand on earlier course

### TECHNICAL MATH I

Basic math, measurements and signed numbers

\*indicates Cert A courses only

## APPLICATION CHECKLIST



**SUBMIT  
APPLICATION**



**MEET WITH  
ADMISSIONS**



**SUBMIT  
TRANSCRIPT(S)**



**ENROLL IN  
CLASSES**

### 2024-2025 PROGRAM COSTS - CERT A (Estimated)

	HIGH SCHOOL	ADULT
Tuition	*\$370	\$3,634
All other fees	\$97	\$818
<b>TOTAL</b>	<b>\$467</b>	<b>\$4,452</b>

\*Tiered courses are paid by Excel in CTE. Non-tiered courses are paid by the student.

### ADDITIONAL CHARGES (Estimated)

	HIGH SCHOOL	ADULT
Tools/Books	\$663	\$663

### 2024-2025 PROGRAM COSTS - CERT C (Estimated)

	HIGH SCHOOL	ADULT
Tuition	*\$925	\$7,426
All other fees	\$97	\$1,566
<b>TOTAL</b>	<b>\$1,022</b>	<b>\$8,992</b>

\*Tiered courses are paid by Excel in CTE. Non-tiered courses are paid by the student.

### ADDITIONAL CHARGES (Estimated)

	HIGH SCHOOL	ADULT
Tools/Books	\$663	\$663

### MORE INFO »

For more programs, enrollment and course schedule information, please contact Admissions. Financial Aid is available to those who qualify.

CALL 785.670.2200

TO TALK W/ ADMISSIONS COUNSELOR