

MACHINE TOOL

Evening Program Options Available

Students enrolled in the Machine Tool program will understand machine tool safety and demonstrate precise measurement. They will learn to operate the drill press, band saw and lathe. The program provides students with experience in lathe turning, electronic discharge machine operation, vertical and horizontal milling, grinding, CNC programming, heat treating, jigs, fixture design, die design, mold design and project planning. This certificate may be applied toward the Associate of Applied Science in Technology.

Program Outcomes

1. Think critically.
2. Communicate effectively.
3. Exhibit information competency.
4. Recognize diverse perspectives.

Requirements

Code	Title	Credits
Required Coursework		42.04
1090 hours		
MACH-105	MACHINING FUNDAMENTALS	
MACH-110	MACHINE TOOL SAFETY	
MACH-115	PRECISION MEASUREMENT/BLUEPRINT READING	
MACH-120	FUNDAMENTAL SKILLS	
MACH-125	PRECISION MEASUREMENT	
MACH-130	DRILL PRESS AND BAND SAW	
MACH-135	LATHE TURNING	
MACH-140	ELECTRONIC DISCHARGE MACHINING	
MACH-145	VERTICAL/HORIZONTAL MILLING	
MACH-150	SURFACE GRINDING	
MACH-155	CYLINDRICAL GRINDING	
MACH-160	TOOL AND CUTTER GRINDING	
MACH-165	CNC PROGRAMMING AND MACHINING	
MACH-170	MACHINE TOOL PROJECTS	
MACH-175	MASTERCAM	
MACH-180	PLASMA CUTTER	
Total Credits		42.04

¹ Course has prerequisite(s)

Note: No course below 100 level will be applied to this certificate

Tuition is calculated by contact hours per semester.

Current/Updated: 08/14/2019

Course	Title	Credits
Fall 1		
MACH-105	MACHINING FUNDAMENTALS	3.00
MACH-110	MACHINE TOOL SAFETY	0.17
MACH-120	FUNDAMENTAL SKILLS	1.98
MACH-115	PRECISION MEASUREMENT/BLUEPRINT READING	4.00
MACH-125	PRECISION MEASUREMENT	2.75

MACH-130	DRILL PRESS AND BAND SAW	2.51
MACH-135	LATHE TURNING	2.00
Credits		16.41
Winter 1		
MACH-140	ELECTRONIC DISCHARGE MACHINING	0.79
MACH-145	VERTICAL/HORIZONTAL MILLING	2.50
MACH-150	SURFACE GRINDING	1.50
MACH-155	CYLINDRICAL GRINDING	1.50
Credits		6.29
Summer 1		
MACH-165	CNC PROGRAMMING AND MACHINING	5.00
Credits		5.00
Fall 2		
MACH-160	TOOL AND CUTTER GRINDING	3.00
Credits		3
Winter 2		
MACH-170	MACHINE TOOL PROJECTS	5.00
MACH-175	MASTERCAM	4.50
MACH-180	PLASMA CUTTER	1.84
Credits		11.34
Total Credits		42.04