



CAREER & TECHNICAL EDUCATION AREA



IVY TECH

PRECISION MACHINE

CERTIFICATE IN MACHINE TOOL TECHNOLOGY (MTTC)

PROGRAM DESCRIPTION

Machinists are the ultimate makers of the world! All products made by humans on this planet are made either directly or indirectly by machinists. The Machine Tool Technology Certificate program combines theory and hands-on learning in both traditional (manual) and computer control machining (CNC) to prepare the next generation of machinists. Upon completion students can resume the program to pursue a Technical Certificate (TC) or Associate of Applied Science (AAS) Degree in MTTC. During this program students will earn nationally recognized industry certifications through the National Institute for Metalworking Skills (NIMS). These industry certifications ensure academic objectives are being met by the student and give them the best opportunity for employment and to earn higher wages. Machinists are in high demand not just locally, but nationwide. This program will develop student's knowledge and skills necessary to perform machining operations using a wide range of machinery including milling machines, drill presses, lathes, surface grinders, and CNC machining centers. Students will also learn to read prints, use precision measuring tools, and use many other hand tools required to produce machined parts.

OCCUPATIONS UPON COMPLETION

OF PROGRAM:

Graduates of the Machine Tool Technology program find employment with area manufacturers as entry level machinists, CNC operators, and CNC setup technicians in a wide variety of industries including aerospace, automotive, and heavy equipment.

OUR GRADUATES:

Our graduates are working in a diverse manufacturing industry machining parts that go into jet engines, military equipment, automated machinery, construction and agricultural equipment, and many more unique applications.

DOE CODES:

- 7109 Principles of Precision Machining
- 7105 Precision Machining Fundamentals
- 7107 Advanced Precision Machining
- 7219 Precision Machining Capstone

ADDITIONAL INFO

GRADE LEVEL: 11TH & 12TH

LENGTH OF PROGRAM: 2 YEARS - 1/2 DAY

HS CREDITS PER SEMESTER: 3

HS CREDITS PER YEAR: 6

PROGRAM WEBSITE: IVYTECH.EDU

COURSE INFO



FALL SEMESTER COURSES (1ST YEAR):

MTTC101 Intro to Machining

(3 Cr Hrs) T/TH 8:00am-11:50am (1st 8 weeks)

MTTC107 CNC Setup & Operations

(3 Cr Hrs) T/TH 8:00am-11:50am (2nd 8 weeks)



SPRING SEMESTER COURSES (1ST YEAR):

MTTC103 Milling Processes I

(3 Cr Hrs) T/TH 8:00am-11:50am (1st 8 weeks)

MTTC105 Abrasive Processes I

(3 Cr Hrs) T/TH 8:00am-11:50am (2nd 8 weeks)



FALL SEMESTER COURSES (2ND YEAR):

MTTC106 Print Interpretation

(3 Cr Hrs) T/TH 8:00am-11:50am (1st 8 weeks)

DESN220 3D Computer-Aided Design

(3 Cr Hrs) T/TH 8:00am-11:50am (2nd 8 weeks)



SPRING SEMESTER COURSES (2ND YEAR):

MTTC208 CNC Mill Programming

(3 Cr Hrs) T/TH 8:00am-11:50am (1st 8 weeks)

MTTC209 CNC Lathe Programming

(3 Cr Hrs) T/TH 8:00am-11:50am (2nd 8 weeks)



FEES:

Course Fees: 1st semester - \$455

2nd semester - \$400

3rd Semester - \$110

4th Semester - \$160

Tuition: Twin Rivers pays ALL CTE course tuition. Student pays for fees and books.

PROGRAM ADVISOR: CJ WILLIAMS

Phone: 812-298-2428

cwilliams1094@ivytech.edu

MTTC PROGRAM CHAIR: MARQUIS SONGER

Phone: 812-298-2440

msonger4@ivytech.edu

*FEES ARE APPROXIMATE AND COULD VARY FROM YEAR TO YEAR