



MANUFACTURING TECHNOLOGY

The Manufacturing Technology program of study focuses on the development & use of automatic & computer-controlled machines, tools, & robots that perform work on metal or plastic. Students will learn how to set up & operate a variety of machine tools to produce precision parts & instruments.

LEVELS	COURSES	
Level 1	Principles of Manufacturing 1809CT / 9-12	
Level 2	Diversified Manufacturing 1828CT / 9-12 <i>Prerequisite: Principles of Manufacturing</i>	
Level 3	Precision Metal Manufacturing I 1806CA-CB / 10-12 <i>Prerequisite: Principles of Manufacturing</i> OSHA 10 Hour Certification Possible	Computer Integrated Manufacturing (PLTW) 1838CT / 10-12 <i>Prerequisite: Introduction to Engineering</i> Weighted Credit
Level 4	Precision Metal Manufacturing II 1807CA-CB / 11-12 <i>Prerequisite: Precision Metal Manufacturing I</i> +NIMS Level I CNC Milling Certification Possible	Practicum in Manufacturing 1822CA-CB / 12 (E) <i>Prerequisite: Precision Metal Manufacturing I AND Selection Process</i>

1 Semester Home Campus	2 Semester Home Campus	1 Semester Ben Barber	2 Semester Ben Barber
OCCUPATION	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Mechanical Engineering Technicians	\$57,117	453	9%
Production & Operating Technicians	\$62,171	5,094	9%
CNC Machine Programmers	\$54,891	222	13%

INDUSTRY BASED CERTIFICATIONS

+ NIMS Level I CNC Milling Certification - Precision Metal Manufacturing II

This certification exam includes these domains: arithmetic, IPM calculations, SFM to RPM conversions, configurations, fittings, holder applications, feature control frame, geometric control symbols, features with size verification, etc.

SUPPORTING CERTIFICATIONS

OSHA 10 Hour Certification - Precision Metal Manufacturing I

The 10 Hour Construction Safety certification is intended to provide an entry level construction worker's general awareness on recognizing & preventing hazards on the job.

The district will pay 100% of the cost of the certification test if students can show mastery by passing a certification practice test AND maintain an 80+ overall course grade at the time of the certification test. If students don't meet the requirements above, they must pay 100% of the cost of the certification test.

Students must have successfully completed a level 1 or 2 course AND a level 3 or 4 to take a practicum course.

To earn a CTE endorsement, an MISD student must take 4 or more credits in the same endorsement area, with at least 2 of 4 credits within the same program of study and must include at least one Level 3 or Level 4 CTE course.