



# Manufacturing Technology Program of Study

Prepare for a career programming and operating automated and computer-controlled machines, tools, and robots that perform work on metal or plastic.

## RECOMMENDED COURSE SEQUENCE

- 1** Principles of Manufacturing Engineering (1 credit) (9<sup>th</sup> - 10<sup>th</sup> Grade)  
Explore CAD and 3-D modeling using several different CAD programs in conjunction with designing and building various projects. Investigate and conduct various aspects of projects that manufacturing engineers conduct in industrial settings.
- 2** Precision Metal 1\* (HCTC) (2 credits) (10<sup>th</sup> - 11<sup>th</sup> Grade)  
Gain knowledge and skills in the application, design, production and assessment of products, services and systems and how they apply to manufacturing engineering, the design of technology, and the assessment of the effects of production technology.
- 3** Precision Metal 2\* (HCTC) (2 credits) (11<sup>th</sup> - 12<sup>th</sup> Grade)  
Students apply advanced manufacturing engineering concepts and skills in pursuit of the NIMS (National Institute of Metalworking Skills) certification.
- 4** Practicum in Manufacturing\* (HCTC) (2 credits) (12<sup>th</sup> Grade)  
Students work in the manufacturing engineering industry under the combined supervision of an industry mentor and the course instructor. Students apply knowledge and skills acquired in pre-requisite courses to enhance marketability in a global economy.

*For more information about CTE Course requirements, view our EMS ISD Course Description Handbook.*

\*Indicates a TEA approved Advanced CTE

