

MANUFACTURING TECHNOLOGY



INTRO TO MACHINING (Grade 10) (1 Credit)

The Intro to Machining program will be an introduction to basic machine shop operation, and hand tool use. Students will be introduced to many aspects of machining including precision measuring, to wet their appetite for the machine shop trade. Students will get hands on experience on manual machines throughout the year.

MACHINING I (2 Credits)

This course is designed to provide students with a broad understanding of opportunities in the field of machining. Components of the course will include blueprint reading, basic and finite measurement, basic machining operations, machine and workplace maintenance, workplace safety, and career and employability skills. In addition, students will be introduced to the design process, computer aided design, computerized numerical control (CNC) machining. Students will also be introduced to basic robotics and automation technology. Overall, students will have a wide range of hands on experience to assist them in making career choices in the ever-expanding machining industries (basic machining, blueprint reading, CAD, CAM).

Prerequisite: None

MACHINING II (2 Credits)

The second year will focus on the computerized aspect of machining and allow students to gain more knowledge of the topics covered in Machining I. Students will get more involved in designing for manufacturing, just-in-time inventory, and other current manufacturing concepts. They will also be responsible for complete preparation of projects from the design phase to production and through final inspection. Students will receive career and employability training to better market their talents after high school and will also be involved in mentoring first year students and getting experience leading and training other students. Students will spend more time learning and utilizing CNC equipment.

In addition, opportunities may exist to explore the exciting field of manufacturing through internships with various local industries. Internship eligibility is based on needs of the local manufacturing community and for students in good academic standing (precision machining).

Prerequisite: Machining I