

## Program Overview

Automobiles, wood products, petroleum and coal products, iron and steel mills, primary metals and fabricated metal products, electricity, plastics and rubber products, printing, biotechnology, textiles, clothing, and leather products are all aspects of the manufacturing sector. In Ontario, the manufacturing sector still accounts for the greatest number of jobs with its production of consumer and industrial goods that are essential for the province's prosperity. Although the manufacturing sector remains a powerhouse in our economy, the sector is undergoing fundamental change to refocus its strategy and remain competitive in a global economy.

The Specialist High Skills Major (SHSM) program in Manufacturing gives students an opportunity to specialize, gain qualifications, and plan a career pathway in various areas of the Manufacturing sector while still in high school. The SHSM Program has a number of required components, designed to give students a "leg-up" to pursue post-secondary opportunities in each of the identified sectors, valuing apprenticeship, college, university and the workplace.

## The Experience

Students in the Manufacturing Specialist High Skills Major program will:

- Be exposed to skilled trades and professional areas, such as engineer, technologist, millwright, machinist, tool and die maker and welder
- Gain an appreciation and understanding for craftsmanship, blueprint reading, proper communication and working to close tolerances
- Have the opportunity to create unique projects by working to blueprints and specifications and to participate in the FIRST Robotics competition
- Work in a sector-related environment to explore future career paths

For more information on the Specialist High Skills Major Manufacturing programs, contact your school guidance counsellor and log onto [haltonpathways.ca](http://haltonpathways.ca).

[haltonpathways.ca](http://haltonpathways.ca)

# Manufacturing



Robotics Engineer  
CNC PROGRAMMER  
Machine Operator  
Welder

Mechanical Engineering Technician  
Precision Machinist



## Course Package

Each SHSM program offers students a bundle of 8 - 10 credits. These courses are regular Ontario secondary school courses that allow students to work towards their Ontario Secondary School Diploma, but have been bundled as the most relevant courses to prepare students for a future in the Manufacturing sector.

### The bundle includes:

- **4 “major” credits** in Manufacturing and related courses in grade 11 and 12
- Supporting credits, which include Contextualized Learning Activities (opportunities for students to learn the subject in the context of the Manufacturing sector):
  - > 1 Grade 12 English credit (and 1 Grade 11 English credit for students pursuing the workplace pathway)
  - > 1 Grade 12 math credit (or 1 Grade 11 math credit for students pursuing the workplace pathway)
  - > 1 Grade 11 or 12 science credit (for students pursuing the apprenticeship, college and university pathways)
  - > 2 cooperative education credits to experience life in the Manufacturing sector



## Achievements in the Program

- **Certifications and Awareness Training:** Students complete sector-recognized certifications related to the major, including Standard First Aid, CPR Level A Training, and WHMIS and at least three electives specific to the Manufacturing sector, such as fall arrest training, lockout/tagout training, CAD/CAM certification and confined space training.
- **Experiential Learning Opportunities:**
  - > Have the opportunity to job-shadow industry professionals
  - > Complete 2 Cooperative Education credits and get work experience in the Manufacturing sector
  - > See guest speakers, go on field trips and other workplace experiences to explore careers in Manufacturing
  - > Document essential skills and work habits through the **Ontario Skills Passport**
- **Reach Ahead Experiences:** Explore the field and post-secondary education opportunities in the Manufacturing sector
- Completing the SHSM program prepares students for their pathway to **apprenticeship, college, university or work**



## HDSB SHSM Program Locations: Manufacturing

Focus	Location	Region of Halton
Manufacturing	White Oaks Secondary School	Oakville
Manufacturing & Advanced Robotics	Burlington Central High School	Burlington
Manufacturing & Advanced Robotics	Milton District High School	Milton
Manufacturing & Precision Machining	M.M. Robinson High School	Burlington
Manufacturing & Welding	Robert Bateman High School	Burlington

