

CAREERS IN MANUFACTURING

- Construction millwrights and industrial mechanics
- Electricians
- Industrial electricians
- Industrial instrument technicians and mechanics
- Machinists and machining and tooling inspectors
- Precision structural metal and platework fabricators and fitters
- Tool and die makers
- Welders and related machine operators
- Chemical technologists and technicians
- Drafting technologists and technicians
- Electrical and electronics engineering technologists and technicians
- Industrial engineering and manufacturing technologists and technicians
- Mechanical engineering technologists and technicians
- Administrative services managers
- Purchasing agents and officers
- Purchasing and inventory control workers
- Technical sales specialists – wholesale trade
- Chemical engineers
- Computer engineers
- Electrical and electronics engineers
- Industrial and manufacturing engineers
- Mechanical engineers
- Metallurgical and materials engineers
- Foundry workers
- Machining tool operators
- Material handlers
- Motor vehicle assemblers, inspectors, and testers



For more information on the Specialist High Skills Major Manufacturing program, contact your school guidance counsellor, SHSM board lead or visit Ontario.ca/SHSM



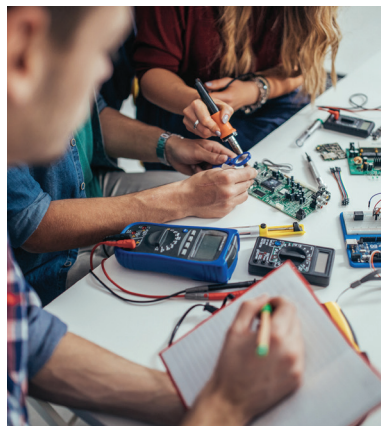
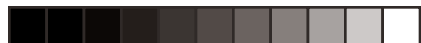
YOUR SKILLS, FUTURE.



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MANUFACTURING





Sector Overview

In Ontario, the manufacturing sector employs the most people and the production of consumer and industrial goods are essential for the province's prosperity. Although the manufacturing sector remains a powerhouse in our economy, the sector is undergoing fundamental changes as it refocuses its strategy and remains competitive in a global economy.

THE EXPERIENCE

Students in the Manufacturing Specialist High Skills Major program will:

- Be exposed to skilled trades and professional areas, such as engineering, robotics, programming, coding, millwrighting, machining, tool and die making and welding
- 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 engineering, robotics and automation opportunities
- Work in a sector-related environment to explore future career paths

CREDITS

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.

Two credits in this bundle include Cooperative Education where students pursue a work placement in a field of interest.



The bundle includes:

- **4 “major” credits** in Manufacturing in grade 11 and 12
- **Supporting credits:**
 - > 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 selected sector-recognized certifications related to the major
- **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 to explore careers in Manufacturing
- Gain a **Sector Partnered Experience** (SPE) component that includes one of the

following options: Innovation Creativity and Entrepreneurship (ICE) training; sector-delivered contextualized coding; or, sector-delivered mathematical literacy. The SPE will require a 6 hour activity, delivered with a sector partner and have an experiential and an assessment component

- Reach Ahead Experiences: Explore the field and postsecondary education opportunities in the Manufacturing sector
- Completing the SHSM program prepares students for their pathway to **apprenticeship, college, university or work**