

Specialist High Skills Major - Manufacturing

The SHSM–Manufacturing enables students to build a foundation of sector-focused knowledge and skills before graduating and entering apprenticeship training, college, university, or an entry-level position in the workplace. Students are exposed to a wide variety of careers in the manufacturing sector, from broad areas such as programming, operation, service, and repair to more specific areas such as welding, 3D printing and advanced manufacturing.

The SHSM program includes:

- the opportunity for hands-on learning in automotive, welding and construction shops, located on site
- students are introduced to skilled trades and professional areas such as engineering, technologist, millwright, machinist, tool and die, and welder
- Students apply their knowledge and skills of computer assisted design, blueprint reading, physics and mathematics while working on unique projects and problem solving opportunities.

What are the required components of this program?

1. A selected bundle of nine Grade 11 and Grade 12 credits that comprises:

Construction (TCJ)	Computer Engineering (TEJ)
Design Technology (TDJ)	Manufacturing (TMJ)
Transportation (TTJ)	

- Three other required credits. One in English, one in Math and one credit in science (or a cooperative education credit) Two cooperative education credits tied to the sector
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2. Six sector-recognized certifications and/or training courses/programs (three compulsory and a choice of three electives).
3. Experiential learning and career exploration activities within the sector.
4. Reach ahead experiences connected with the student's postsecondary pathway.
1. Development of essential skills and work habits required in this sector, and documentation of them using the Ontario Skills Passport.
 2. Completion of six hours of **ICE (Innovation, Creativity and Entrepreneurship) training**. ICE training is an experience in which student teams will use a process called the **3 Gears** to solve a real world challenge specific to a sector partner's organization.