

PROGRAM DETAILS

The Mastercam training program provides **CAD/CAM programming skills** through short, **stackable certificate courses**. Designed for working professionals and aspiring CNC programmers, this program is delivered in small online **cohorts featuring live teaching**. Students build their expertise step-by-step, starting with design fundamentals before progressing to milling, multi-axis, and lathe programming. The curriculum covers everything from geometry and surface creation to developing complex 2D and 3D toolpaths for contours, pockets, and drilling.

ADMISSION REQUIREMENTS

- Grade 12, Diploma or equivalent GED
- Minimum 18 years or older
- English Language Proficiency
- **Pre-Requisite Level 1:** G-Code Programming
- **Pre-Requisite Level 2:** Mastercam Design Level 1

Note: For the most accurate and up-to-date admission requirements, we recommend contacting our institute directly or visiting our website.

EMPLOYMENT PROFILE

Graduates of the Mastercam training program are essential to the modern manufacturing and engineering industries. With CAD/CAM programming skills, they design complex geometry and surfaces and develop precise toolpaths for milling, turning, and multi-axis operations. As skilled CNC Programmers or CAD/CAM Technicians, they bring valuable experience to the workplace, ensuring efficiency and precision in any manufacturing environment.

CAREER OPPORTUNITIES

Graduates are qualified for a range of entry-level to mid-level positions in design, drafting, and engineering support, such as:

- **CAD/CAM Technician**
- **CAM Operator**
- **CNC Mill & Lathe Programmer**
- **Junior CNC Programmer (2D, 3D, Multi-Axis)**

Annual Salary	\$41k - \$75k
Hourly Rate	\$20/hr - \$36/hr

**According to jobbank.gc.ca (NOC code 22302)*

PROGRAM DURATION

Mastercam Level 1	39 Hours
Mastercam Level 2	39 Hours

PROGRAM FOCUS

The Mastercam training programs are structured to provide practical **programming skills** through **two levels (Design – 39 hours, Toolpath – 39 hours)**. Tailored for **working professionals** and aspiring **CNC programmers**, the curriculum builds expertise step-by-step, from **design fundamentals** to **milling, multi-axis, and lathe programming**. This instructor-led online training ensures students are thoroughly prepared with the skills required to succeed in today's demanding manufacturing and engineering fields.

Here are the program's core focus areas:

- CAD Fundamentals & Geometry Creation
- Advanced Geometry Editing & Transformation
- 3D Surface Modelling
- 2D Mill Toolpath Programming
- 3D & High-Speed Machining Strategies

Gain **Mastercam experience**, covering a complete skillset from **design fundamentals** like **geometry creation** and **surface modelling** to advanced **2D and 3D mill toolpath programming**. The curriculum advances your abilities from creating **contours** and **pockets** to programming complex **high-speed** and **multi-axis toolpaths**, equipping you with a comprehensive foundation in **CAD/CAM for manufacturing**.

PROGRAM SUMMARY

This table will display a summary of total Instructional hours and delivery format. The Ministry, Career College, and any subject or education assessors may refer to this section for a general understanding of the program's components.

Type of Learning	Total Instruction Hours	Mode of Delivery
Level 1	39	Online
Level 2	39	Online

List of subjects for each module and delivery format:

Level 1- Mastercam Mill Design	
Delivery Format - Online	
1	Introduction to Mastercam
2	Geometry Creation
3	Editing Tools
4	Trimming & Break Commands
5	Xform Commands
6	Surface Creation
7	Drafting
8	2D and 3D Construction Planes
Level 2- Mastercam Mill Toolpath	
Delivery Format - Online	
1	Contour Toolpaths
2	Drilling Toolpaths
3	Pocketing Toolpaths
4	3D Surface Toolpaths
5	High-Speed Toolpaths
6	Feature-Based Machining (FBM)

**The course content may be changed as per industry standards*

Please Note:

- a) Course order may differ from the sequence shown in this outline.
- b) Program fees include all textbooks, supplies, and required certifications.
- c) Some program components may be delivered online, through computer-assisted learning, or a blended format with instructor support.
- d) The College may update program content, schedules, materials, instructors, or technology as needed to support ongoing improvement. Changes take effect upon implementation.

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