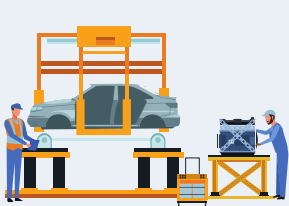


## Industrial Engineering and Manufacturing Technologists and Technicians



Industrial Engineering and Manufacturing Technologists and Technicians provide technical support in the development of production facilities and systems, creating and planning improvements to process and product, plant and equipment, health and safety and quality assurance. Working with big data, machinery and robotics, industrial engineering and manufacturing technicians and technologists perform tasks requiring accuracy and precision in an advanced workplace and assist in future proofing manufacturing industries.

### Where do Industrial/Manufacturing Technologists and Technicians work?



Vehicle Assembly and Body Parts Manufacturing



Aerospace Products and Parts Manufacturing



Plastic Product Manufacturing



Architecture, Engineering & Related Services



Pharmaceutical and Medicine Manufacturing

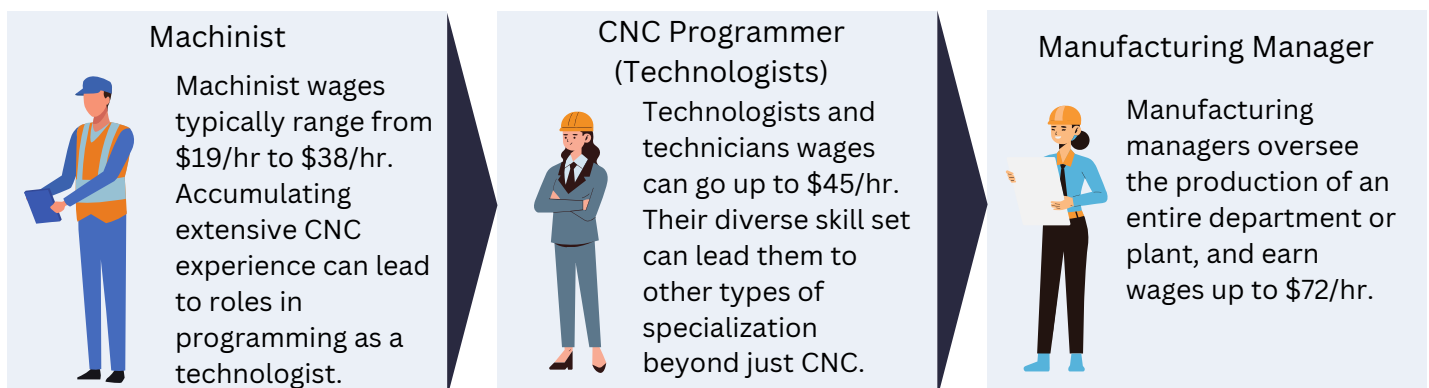
### What do Industrial/Manufacturing Technologists and Technicians do?

Industrial Engineering and Manufacturing Technologist and Technicians share responsibilities with industrial engineers and manufacturing managers. They closely monitor production, product quality and health and safety to recommend changes to plant design, equipment, and practices and procedures to improve the overall quality of manufacturing activity.

- Develop and carry out industrial health, safety and fire prevention plans and programs, and conduct safety training programs
- Develop and conduct production, inventory and quality assurance programs in manufacturing or in other industries
- Develop applications using CAD/CAM (computer-assisted design, computer-assisted manufacturing) for the control of robots, computer numerical control (CNC) machines and other manufacturing processes and operations

### Career pathways & potential earnings of Technologists and Technicians

Technologists and technicians can progress to other roles and positions:



Industrial Engineering and Manufacturing Technologists and Technicians can also apply their skills and expertise in other occupations such as the following:

- Chemical technologists and technicians
- Insurance underwriters

## How do I become an Industrial Technologist or Technician?

There are several requirements to become an Industrial Engineering or Manufacturing Technician or Technologist. Some requirements may vary by province or company. Below are the most commonly required qualifications to work in this occupational group:

- **Minimum Education:** Two-to-three-year college program or equivalent in industrial engineering, manufacturing technology or a related discipline for technologists. Completion of a one-to-two-year college program in industrial engineering or a related discipline is required for industrial engineering and manufacturing technicians.
- **Certification and Licensing:** Available and optional through provincial or territorial associations of applied science/engineering technologists and technicians. Requires two years of supervised work experience.
- **Training and other requirements:** CAD, CAM or CNC programmers are required to have work experience in metal working, as well as a college diploma or trade certification.

### Education & Training



## What are important skills to have as a Technologist or Technician?

Technologists and Technicians must have a strong foundation in working with various manufacturing processes and technologies, and have a willingness to learn about new industry practices and how best to adapt them to their own work environment.

### Technical Knowledge and Skills

- CAD/CAM and CNC software
- Production and Processing
- Quality Control and Operations Analysis
- Technology Design
- Public Safety and Security

### Soft Skills

- Visualization
- Perceptual Speed
- Problem Sensitivity
- Written Expression
- Inductive Reasoning

## Industrial Technologists/Technicians in Canada

The job market for Industrial and Manufacturing Technologists and Technicians in Canada is promising. In 2021, more than 16,150 industrial and manufacturing engineers were employed across Canada's sectors and industries. FOCAL projects more than 300 job openings in Canada's automotive manufacturing sector between 2021 and 2030. FOCAL also forecasts that during the same period, more than 200 workers are needed to fill recruitment gaps in the sector.

Learn more about the job market for Industrial and Manufacturing Technicians and Technologists, as well as about many other developments and new technologies in Canada's automotive manufacturing by visiting our website [futureautolabourforce.ca](https://futureautolabourforce.ca). You can also check our social media by following these links:

### Jobs and Recruitment



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