



## CAREER PROFILES

### Mechanical Engineering Technologist and Technicians:

**Mechanical Engineering Technologists and Technicians** provide technical support and services or may work independently in mechanical engineering fields such as the design, development, maintenance, and testing of machines, components, tools, heating and ventilating systems, power generation and power conversion plants, manufacturing plants, and equipment.

### Wage/Salary Information:

\$59,350 is the median annual salary found in local job-postings.

\$28.81/hour is the median wage reported locally.

### Commonly Listed Skills in Job Postings:

- AutoCAD
- Detail oriented
- Oral and written communication
- Troubleshooting
- Teamwork
- Blueprint reading
- Microsoft Office
- Manual dexterity
- Creativity
- Work independently
- Problem solving
- Organizational skills
- Time management
- Bilingual
- Management
- Self-motivated
- Interpersonal
- Critical thinking
- Management

### Job Duties:

Mechanical Engineering Technologists prepare and interpret conventional and computer-assisted design (CAD) engineering designs, drawings, and specifications for machines and components, power transmission systems, process piping, heating, ventilating, and air-conditioning systems. Mechanical Engineering Technologists prepare cost and material

estimates, project schedules, and reports and conduct tests and analyses of machines, components and materials to determine their performance, strength, response to stress and other characteristics. They design moulds, tools, dies, jigs, and fixtures for use in manufacturing process. Mechanical Engineering Technologists also supervise, monitor, and inspect mechanical installations and construction.

Mechanical Engineering Technicians assist in preparing conventional and computer-assisted design (CAD) engineering designs, drawings, and specifications. Mechanical Engineering Technicians carry out a limited range of mechanical tests and analyses of machines, components, and materials. They assist in the design of moulds, tools, dies, jigs, and fixtures for use in manufacturing processes and assist in inspection of mechanical installations and construction projects. Mechanical Engineering Technicians participate in the installation, repair, and maintenance of machinery and equipment.

### Working Conditions:

Mechanical engineering technologists and technicians typically work 40 hours per week, however, overtime may be a regular requirement.

On the job, they use computers daily for communications, as well as for design and other functions. Those specializing in design will work at CAD stations, but will also spend a small percentage of their time working on site.

Most technicians and technologists work in offices, factories and labs, and some work in other settings, such as warehouses, power stations, mills or construction sites or in a combination of these environments.

Mechanical engineering technicians and technologists work alongside engineers to provide technical support and services or they may work independently.

These technicians wear protective gear as appropriate, including hard helmets, boots, eyewear and earplugs for noise when working on sites. Those working long hours at a computer workstation employ ergonomic work practices.

### Career Pathways:

Technicians can advance to Mechanical Technologist positions with further education and experience. Technologists may progress from Designer or Engineering Assistant positions to supervisory or technical management positions. Taking a degree program in the field may allow a candidate to pursue studies in management in technology in engineering. They may become involved in research and development, technical sales, or drafting technology.

Workers in this field may specialize in one of the following areas: aeronautical technology, CAD/CAM, energy systems, fire protection, naval architecture, marine engineering, mechanical design, mechanical technology, power engineering, robotics, or tool and die design.



[St. Clair College:](#)

**Mechanical Engineering Technician – Industrial**

**Admission/Eligibility Requirements:**

- OSSD with the majority of courses at the College (C), University (U), University/College (M), or Open (O) level
- Grade 12 Match (C), or (U)
- Senior level physics: (C) or (U) is recommended

**Academic Credential:** Two Year - Ontario College Diploma

**Professional Certification:** Unknown

**Attendance:** In-person

**Full-time or Part-time:** Full-time

**Program Length:** 2-year diploma

**Program Cycle:** Unknown

**Program Cost:**

- Year 1: \$3,991.61
- Year 2: \$3,854.05
- Total: \$7,845.66 (2017/18)

**OSAP Eligible:** Yes

**Location:** 2000 Talbot Road West, Windsor, NgA 6S4

For more information on this program, please visit:

[http://www.stclaircollege.ca/programs/postsec/mech\\_ind/](http://www.stclaircollege.ca/programs/postsec/mech_ind/)

**Mechanical Engineering Technology – Automotive Product Design**

**Admission/Eligibility Requirements:**

- OSSD with the majority of courses at the College (C), University (U), University/College (M), or Open (O) level
- Grade 12 Match (C), or (U)
- Senior level physics: (C) or (U) is recommended

**Academic Credential:** Three Year - Ontario College Advanced Diploma

**Professional Certification:** Unknown

**Attendance:** In-person

**Full-time or Part-time:** Full-time

**Program Length:** 3-year diploma

**Program Cycle:** Unknown

**Program Cost:**

- Year 1: \$3,941.61
- Year 2: \$3,781.05
- Year 3: \$3,804.05
- Total: \$11,526.71 (2017/18)

**OSAP Eligible:** yes

**Location:** 2000 Talbot Road West, Windsor, NgA 6S4

For more information on this program, please visit:

[http://www.stclaircollege.ca/programs/postsec/mech\\_auto/](http://www.stclaircollege.ca/programs/postsec/mech_auto/)

[University of Windsor:](#)

**Mechanical Engineering**

**Admission Requirements:**

- Minimum Admissions Average: 74%
- Mean Admissions Average: 86%
- Admission Requirements: ENG4U, MHF4U, SCH4U, and SPH4U required.
- MCV4U strongly recommended.
- 74% second Science/Math average, excluding SB14U.

**Academic Credential:** Bachelor of Applied Science (Honours) in Mechanical Engineering

**Professional Certification:** Opportunity for Honours Certificate in Mechanical Engineering and can also take Aerospace, Automotive, Materials and Environmental options.

**Attendance:** In-person

**Full-time or Part-time:** Full-time

**Program Length:** 4 years

**Program Cycle:** Intake for Fall, Winter, Summer

**Program Cost:** \*\$11714.28

**OSAP Eligible:** Yes

**Location:** 401 Sunset Avenue, Windsor, NgB 3P4

For more information on this program, please visit:

<http://www.uwindsor.ca/engineering/mame/>

**Disclaimer:** *The educational institution reserves the right to change information without notice, and may result in discrepancies between their information and the information presented above. If any errors are found, please report them to [info@workforcewindsoressex.com](mailto:info@workforcewindsoressex.com).*