

# **Mechanical Engineering Technology**



## Overview

Advanced Diploma

Is your goal to find employment in the rapidly expanding technological industry? Are you mechanically inclined?

Industry is experiencing a rapidly growing need for the expertise provided by the Mechanical Engineering Technology program. This three-year program of study will develop highly skilled personnel capable of meeting the constantly changing demands brought on by advancing technologies.

The program design is broad based, meeting the basic outcomes particular to the Millwright, Machinist, and Steam Fitter trades, while meeting the additional requirements associated with an academic program presented at the Technologist level. An optional co-op placement in industry will be an integral part of the program, giving you hands-on experience above and beyond what traditional classroom instruction and laboratories can provide.



## **Top Highlights**

- Balance of practical and coursework you might be getting your hands dirty with a wrench one day, then be designing with CAD the next!
- Prepares you for further apprenticeship learning in a variety of trades



## **Employment Opportunities**

Graduates of the program go on to a variety of positions including apprenticeship in millwright, machinist, steam fitter trades, design drafting, mechanical sales, production operations, hydraulics servicing and engineering type support roles.



**Experiential Learning** 

Optional Co-op



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### **Admission Requirements**

- Ontario Secondary School Diploma (or equivalent) with courses from the College (C), University (U), University/College (U/C), or Open (O) preparation levels with Grade 12 English (C/U) Level.
- or successful completion of the Mature Student Assessment.
- or successful completion of the General Education Development Test (GED).
- or appropriate credits from the Academic and Career Entrance program (ACE).

#### **Required Courses**

Grade 11 MCF3M Functions and Applications or MCR3U Functions or Grade 12 MAP4C Foundations for College Math or MCT4C Mathematics for College Technology or University Preparation.

### **Alternative Pathways**

Students who do not meet the entrance requirements are encouraged to apply for the Pre-Technology-Technology/ Aviation program to facilitate success in their Technology path.

## **Articulation Agreements**

Upon successful completion of third year, graduates may apply to continue their education in the Mechanical Engineering degree program at Lakehead University.

Visit: **confederationcollege.ca/articulation-agreements** for more information.

#### **First Semester**

CS 050	College Writing
MA170	Technology Math I
MC 165	Microsoft Office
MX 111	<b>Engineering Graphics</b>
MX 121	<b>Mechanical Practices</b>
MX 131	Machine Shop I
MX 141	Welding Practices I
SC 110	Pre-Tech Physics I

#### **Second Semester**

GE	General Elective
MA270	Technical Math II
MX 231	Machine Shop II
MX 241	Welding Practices II
MX 261	Power Transmission I
MX 271	Industrial Design I
MX 460	Introduction to Electricity
SC 210	Pre-Tech Physics II

## **Third Semester**

CS 219	Communications for Technology
GE	General Elective
MA370	Technical Math III
MX 301	Statics
MX 341	Strength of Materials
MX 361	Power Transmission II
MX 371	Industrial Design II
MX 381	Fluid Power

#### Fourth Semester

GE	General Elective
MA 431	Mathematics IV
MX 410	Introduction to Thermodynamics
MX 431	Introduction to CNC
MX 471	Power Transmission III
MX 475	Advanced Structural Design
MX 481	Fluid Mechanics

#### Fifth Semester

MX 501	Advanced Calculus
MX 531	Advanced Dynamics
MX 561	Research Project I
MX 571	Mechanical Lab I
MX 581	Advanced Fluid Mechanics
MX 591	Engineering Operations and Management

#### Sixth Semester

MX 611	Metrology & Quality Control
MX 621	Machine Design
MX 631	Advanced Dynamics of Machines
MX 641	Advanced Strength of Materials
MX 661	Research Project II
MX 671	Mechanical Lab II

MX 610 Applied Thermodynamics and Heat Transfer







