

MECHANICAL TECHNIQUES - INDUSTRIAL MAINTENANCE

Program: MTIN

Credential: Ontario College Certificate

Delivery: Full-time

Length: 2 Semesters

Duration: 1 Year

Effective: Fall 2019

Location: Owen Sound

Description

Students use theoretical and practical training to perform basic industrial and construction millwright techniques. Students gain knowledge in topics such as health and safety, drawing interpretation, applied mathematics, communications, electrical theory, hydraulic applications, welding, basic machining and mechanical maintenance theory and applications.

Career Opportunities

Graduates may find entry level employment in automotive manufacturing, heavy equipment manufacturing and service, automation machine building and service, pharmaceutical manufacturing, food manufacturing, injection moulding, commercial sawmill industry, mining equipment manufacturing, hospital maintenance, retirement home and nursing home maintenance, educational institutional maintenance and most medium to large manufacturing facilities in Ontario. Students may be prepared to apply for work as a millwright apprentice, entry level maintenance mechanic or entry level facilities mechanic.

Program Learning Outcomes

The graduate has reliably demonstrated the ability to:

1. complete all work in compliance with current legislation, standards, regulations and guidelines;
2. contribute to the application of quality control and quality assurance procedures to meet organizational standards and requirements;
3. comply with current health and safety legislation, as well as organizational practices and procedures;
4. support sustainability best practices in workplaces;
5. use current and emerging technologies to support the implementation of mechanical and manufacturing projects;
6. troubleshoot and solve standard mechanical problems by applying mathematics and fundamentals of mechanics;
7. contribute to the interpretation and preparation of mechanical drawings and other related technical documents;
8. perform routine technical measurements accurately using appropriate instruments and equipment;
9. assist in manufacturing, assembling, maintaining and repairing mechanical components according to required specifications;
10. select, use and maintain machinery, tools and equipment for the installation, manufacturing and repair of basic mechanical components;
11. use current and emerging technologies to troubleshoot routine Industrial Maintenance situations;

12. select, use and maintain machinery, tools and equipment for the installation, manufacturing and repair of basic mechanical components specific to an industrial environment;
13. respond to environmental issues related to the industrial maintenance trade;
14. identify entrepreneurial opportunities related to the industrial maintenance trade.

The Program Progression

Fall Intake

- **Sem 1:** Fall 2019
- **Sem 2:** Winter 2020

Admission Requirements

OSSD or equivalent, with

- Grade 12 English (C or U)
- Grade 11 Math (C)

Mature students, non-secondary school applicants (19 years or older), and home school applicants may also be considered for admission. Eligibility may be met by applicants who have taken equivalent courses, upgrading, completed their GED, and equivalency testing. For complete details refer to: www.georgiancollege.ca/admissions/policies-procedures/ (<http://www.georgiancollege.ca/admissions/policies-procedures/>)

Applicants who have taken courses from a recognized and accredited post-secondary institution and/or have relevant life/learning experience may also be considered for admission; refer to the Credit Transfer Centre website for details:

www.georgiancollege.ca/admissions/credit-transfer/ (<http://www.georgiancollege.ca/admissions/credit-transfer/>)

Graduation Requirements

10 Program Courses
1 Communications Course
1 General Education Course

Graduation Eligibility:

To graduate from this program, the passing weighted average for promotion through each semester, and to graduate is 60%. Additionally, a student must attain a minimum of 50% or a letter grade of P (Pass) or S (Satisfactory) in each course in each semester unless otherwise stated on the course outline.

Program Tracking

Semester 1		Hours
Program Courses		
MATH 1018	Introduction to Technical Mathematics	42
MENG 1020	Industrial Mechanical Applications	84
WETC 1000	Manufacturing Trade Safety	42
WETC 1001	Blueprint Reading for the Trades	42
WETC 1013	Welding and Cutting Processes	42
Communications Course		
Select 1 course from the communications list during registration.		42
Hours		294

Semester 2

Program Courses		
ELEC 1002	Electrical Systems and Control	56
TDIE 1001	Basic Machine Tool Application	112
TDIE 1013	Basic Machine Tool Theory	42
TDIE 2000	Hydraulics and Pneumatics	42
WETC 1015	Shielded Metal Arc Welding Fundamentals	42
General Education Course		
Select 1 course from the general education list during registration.		42
Hours		336
Total Hours		630

Graduation Window

Students unable to adhere to the program duration of one year (as stated above) may take a maximum of two years to complete their credential. After this time, students must be re-admitted into the program, and follow the curriculum in place at the time of re-admission.

Information contained in College documents respecting programs is correct at the time of publication. Academic content of programs and courses is revised on an ongoing basis to ensure relevance to changing educational objectives and employment market needs. The college reserves the right to add or delete programs, options, courses, timetables or campus locations subject to sufficient enrolment, and the availability of courses.