

WELDING TECHNIQUES

Program: WETC
Credential: Ontario College Certificate
Delivery: Full-time
Length: 2 Semesters
Duration: 1 Year
Effective: Fall 2019
Location: Midland, Owen Sound

Description

Students are provided with the theoretical and practical training to perform most basic welding techniques. At the completion of the program, students are eligible to test for welding tickets based on their level of expertise. It is expected that most of the graduates will be prepared to enter the workforce as a Welder following the successful completion of this program.

Students are exposed to topics including health and safety, blueprint reading and sketching, applied math, communication, shielded metal arc welding, gas metal arc welding, introduction to computers, and all position pipe welding.

Career Opportunities

Graduates may find a range of occupations in the welding field, including manufacturing and fabricating, automotive and heavy equipment production, automation, and construction. Self-employment is another viable option upon graduation.

Program Learning Outcomes

The graduate has reliably demonstrated the ability to:

- perform work responsibly and in compliance with the Occupational Health and Safety Act;
- interpret engineering drawings and blueprints and produce basic graphics required by industry;
- recognize and understand use of welding symbols;
- use layout and fabrication processes typical to the industry to determine correct form with accuracy;
- select appropriate tools and devices to perform mathematical calculations and technical measurements for successful completion of a project;
- perform weld applications utilizing Shielded Metal Arc(SMAW), Flux Core(FCAW) and Gas Metal Arc(GMAW – Mig Welding) welding equipment;
- use welding techniques according to industry standards;
- create high quality welds on various types of material and create joints in the flat, horizontal, vertical and overhead positions;
- identify how to prevent weld defects and define procedures for correction to ensure weld quality;
- communicate clearly, concisely, and correctly in the written, spoken and visual form that fulfils the purpose and meets the need of the audience;
- contribute to the development, implementation and maintenance of environmentally sustainable practices within the welding industry;

- discover business skills and career opportunities that could lead to entrepreneurial opportunities.

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)

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		
WETC 1000	Manufacturing Trade Safety	42
WETC 1001	Blueprint Reading for the Trades	42
WETC 1002	Trade Calculations for Welders	42
WETC 1004	Shielded Metal Arc Welding Basics	98
WETC 1005	Metallurgy for Welding	42
WETC 1013	Welding and Cutting Processes	42
Hours		308
Semester 2		Hours
Program Courses		
WETC 1006	Shielded Metal Arc Welding Intermediate	70
WETC 1007	Gas Metal Arc Welding / Flux Core Arc Welding	84
WETC 1008	Gas Tungsten Arc Welding	42
WETC 1014	Layout and Fabrication	56
Communications Course		
Select 1 course from the communications list during registration.		42
General Education Course		

Select 1 course from the general education list during registration.	42
Hours	336
Total Hours	644

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.