MECHANICAL TECHNIQUES - MARINE ENGINE MECHANIC

Program: MTME
Credential: Ontario College Certificate
Delivery: Full-time
Work Integrated Learning: 1 Field Placement
Length: 2 Semesters
Duration: 1 Year
Effective: Fall 2023
Location: Midland

Description

In this program, students prepare for a career as a Marine Engine Mechanic, or further education in a related field. Students develop a concentrated understanding of marine and watercraft systems. This includes gasoline and diesel engines, fuel management systems, engine electrical systems, marine direct current electrical systems, steering and hydraulic systems, drives, and propulsion systems. A significant hands-on component allows students to develop practical and technical skills to meet the current needs of the Recreational Marine industry, and provides a basis to respond to emerging trends in the field. Finally, students become effective communicators and problem solvers who have an awareness of environmental issues, effective customer service, and basic business operations. Upon completion, the graduate may return for additional technical training and specialization.

Career Opportunities

Graduates may find a range of occupations in the mechanical field, including manufacturing, dealers, operations, sales, service, and self-employment. A graduate may find employment as a Marine Engine Technician Apprentice, retail sales support, marina operations, in water and out of water boat handling. They may also opt to return to school for additional technical training and specialization.

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. role model professional behavior consistent with environmental stewardship;
12. apply basic entrepreneurial strategies when considering new business opportunities.

Program Progression

The following reflects the planned progression for full-time offerings of the program.

Fall Intake

- **Sem 1:** Fall 2023
- **Sem 2:** Winter 2024

Articulation

A number of articulation agreements have been negotiated with universities and other institutions across Canada, North America and internationally. These agreements are assessed, revised and updated on a regular basis. Please contact the program co-ordinator for specific details if you are interested in pursuing such an option. Additional information can be found on our website at https://www.georgiancollege.ca/admissions/credit-transfer/ (http://www.georgiancollege.ca/admissions/credit-transfer/)

Admission Requirements

OSSD or equivalent with

- Grade 12 English (C or U)
- any Grade 11[1] or 12 Mathematics (C, M, or U)

[1] Minimum of 60% in Grade 11 College or University level Mathematics (MBF3C or MCF3M)

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/academic-regulations/ (https://www.georgiancollege.ca/admissions/academic-regulations/)

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 for Prior Learning website for details: www.georgiancollege.ca/admissions/credit-transfer/ (https://www.georgiancollege.ca/admissions/credit-transfer/)

Additional Information

The very nature of the work requires manual dexterity and lifting. Applicants are advised to consult with the Program Co-ordinator if they have specific questions related to the physical demands of the program and future employment.

Graduation Requirements

13 Program Courses
1 Communications Course
1 Field Placement

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

The following reflects the planned course sequence for full-time offerings of the Fall intake of the program. Where more than one intake is offered contact the program co-ordinator for the program tracking.

Semester 1		Hours
Program Courses		
MATH 1007	Mathematics Techniques	42
MENG 1000	Workshop Procedures	42
MENG 1001	Engine Fuel Systems Principles	42
MENG 1002	Engine Electrical Systems Diagnostics	42
MENG 1003	Engine Function and Design	42
MENG 1009	Basic Electrical Principles	42
MENG 1011	Health and Safety Fundamentals	42
	Hours	**294**
Semester 2		
Program Courses		
BUSI 1004	Service and Information Techniques	42
MARE 1000	Alternate Marine Propulsion Systems	42
MARE 1001	Recreational Boat Principles	42
MARE 1002	Stern Drive System Repair Principles	42
MARE 1003	Outboard Motor Repair Principles	42
MENG 1010	Diesel and Overhead Valve Engines	42
Communications Course		
Select 1 course from the communications list during registration.		42
Field Placement		
MARE 1020	Field Placement - MTME	160
	Hours	**454**
	Total Hours	**748**

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.

Disclaimer: *The information in this document 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.*

Program outlines may be subject to change in response to emerging situations, in order to facilitate student achievement of the learning outcomes required for graduation. Components such as courses, progression, coop work terms, placements, internships and other requirements may be delivered differently than published.