

HEATING, VENTILATION AND AIR CONDITIONING TECHNICIAN (HVTN)

Learn to maintain the quality of indoor spaces

Prepare to challenge the Technical Standards and Safety Authority (TSSA) Gas Technician and Oil Burner Technician certifications with Cambrian's TSSA-accredited program. Gain hands-on training in state-of-the-art HVAC labs to master the maintenance of indoor air quality. You'll get a solid understanding of natural gas, propane, and fuel oil heating systems, as well as air conditioning and refrigeration principles. You'll be introduced to the skills required for the installation, service, and troubleshooting of residential and light commercial heating and cooling applications.

After your first year and upon successfully challenging the TSSA Level 3 Gas Technician and Oil Burner Technician exams, you'll be certified to work at entry-level positions. Upon completion of your second year and writing the TSSA Level 2 Gas Technician and Oil Burner Technician exams, you'll be fully certified to enter the workforce as a heating systems technician.

Program highlights

- Capped enrolment
- Accredited by the Technical Standards and Safety Authority (TSSA)
- Hands-on training in state-of-the-art HVAC labs
- One of only 2 colleges in Ontario to offer Oil Burner Technician training
- Opportunity for select students to participate in the Ontario Skills Competition

Program of study for 2024-25 Academic Year

Students are required to successfully complete an online Lab Safety course (in Moodle) when starting their program at Cambrian. This course must be completed prior to entering the labs (as identified in the table below) in the Schools of Skills Training, Engineering Technology and Environmental Studies.

Semester 1		Credits
MTH 1010	Trade Math I	3
ELC 1111	Electrical Fundamentals ¹	4
HVA 1101	Trade Practices ¹	4
HVA 1102	HVAC Controls I ¹	4
HVA 1103	Fuel Fundamentals and Codes	3
RAC 1100	Refrigeration I ¹	4
ENG 1002	College Communications	3
	Credits	25
Semester 2		
HVA 1201	Gas Pipe Fitter ¹	4
HVA 1202	HVAC Controls II ¹	4
HVA 1203	Appliance Efficiency ¹	3
HVA 1204	Burners & Combustion Chambers ¹	3
RAC 1200	Refrigeration II ¹	4

One General Education course. ²		3
	Credits	21
Semester 3		
ENG 1780	Applied Communication II	2
HVA 2300	HVAC Control Labs ¹	4
HVA 2301	Space Heating and Conversions	3
HVA 2302	Advanced HVAC Controls	4
HVA 2303	HVAC Appliance Labs ¹	4
HVA 2304	HVAC Appliances	3
One General Education course. ²		3
	Credits	23
Semester 4		
HVA 2400	HVAC Heating Systems Lab ¹	4
HVA 2401	HVAC Heating Lab ¹	4
HVA 2402	Forced Air Systems	4
HVA 2403	Hydronics and Water Heaters	3
HVA 2404	Air Conditioning Heat Pumps	3
One General Education course. ²		3
	Credits	21
	Total Credits	90

¹ Course with Lab Component

² For more information regarding General Education courses, click here (<https://cambriancollege.ca/general-electives/>).

Admission requirements

For graduates of the new curriculum (OSS): Ontario Secondary School Diploma (30 credits) or equivalent or mature student status, including:

- Any grade 12 English (C) or (U)
- Any grade 11 mathematics (C), (U), or (M)

Program delivery

2024-2025

Fall term delivery

SEMESTER 1: Fall 2024
SEMESTER 2: Winter 2025
SEMESTER 3: Fall 2025
SEMESTER 4: Winter 2026

Winter term delivery

SEMESTER 1: Winter 2025
SEMESTER 2: Spring 2025
SEMESTER 3: Fall 2025
SEMESTER 4: Winter 2026

Specific program pathways

College or university degree opportunities

If you are a graduate of this program, you may continue your studies at a college or university and you may receive credit(s) for your prior college education. Refer to Cambrian's college and university agreement (<https://cambriancollege.ca/supports-services/articulation-agreements/>) details for further information.

Employment opportunities

Graduates who have met TSSA certification requirements may find employment as natural gas, propane, and oil burner technicians. They may also pursue OCOT (Ontario College of Trades) journey person apprenticeship within the refrigeration, air conditioning, plumbing, or sheet metal fabrication industries. Graduates are also prepared for employment opportunities as sales or maintenance personnel in commercial, institutional, and industrial areas.

Contacts

Julien Lavictoire

Program Coordinator

705-566-8101, ext 6349

julien.lavictoire@CambrianCollege.ca

INTERNATIONAL ADMISSIONS

mailboxadmissions@CambrianCollege.ca