



CERTIFICATE

**Certificate in Construction Technology - Heating, Ventilation, and Air-Conditioning (HVAC)**

**Total Credit Hours:** 32

**About** Certificate in Construction Technology - Heating, Ventilation, and Air-Conditioning (HVAC)

The Certificate in Construction Technology Program will prepare students for the current local and global job market with entry-level skills needed for any of the following fields: carpentry; electricity; heating, ventilation, and air conditioning (HVAC); masonry; plumbing; reinforcing metal worker; and welding. All students must successfully pass four (4) core courses (technical related requirements) with a “C” or better before enrolling in one (1) of the seven (7) concentration areas.

[REQUIREMENTS FOR CERTIFICATE](#)

<b>Heating, Ventilation, and Air-Conditioning (HVAC) Track</b>		
<b>Major Requirements</b>		
<b>Course</b>	<b>Course Name</b>	<b>Credits</b>
AE103	Basic Blueprint Reading	3
CT100	Introduction to Construction Trades	3
CT140	Industrial Safety	3
CT185A	Refrigeration and Air Conditioning Level I	5
CT 185B	Refrigeration and Air Conditioning Level II	5
CT185C	Refrigeration and Air Conditioning Level III	5
CT292	Construction Practicum	3
HL135	Heartsaver First Aid CPR AED	1
MA094	Mathematics for the Trades	4
<b>Certificate Total Minimum</b>		<b>32</b>

[GENERAL REQUIREMENTS FOR CERTIFICATE](#)

# General Requirements for Certificates

Effective fall Semester 2003, several academic policy changes were implemented to ensure that students are adequately prepared to meet business and industry standards. All Undeclared or newly Declared Students enrolled in regularly scheduled postsecondary courses must be enrolled in or must have completed developmental coursework for Math and English or have successfully placed into post-secondary Math and English (or equivalent).

Students must fulfill the English general education requirement by the time they have enrolled in 12 credits of classes. This means that students may take only nine (9) credits before they must begin meeting the general education requirements. All declared students in Certificate programs will be required to successfully complete minimum general education course requirements. For more information, refer to the Admissions Information, General Education Policy section of this catalog.

## A. General Education Requirements

Students must demonstrate proficiency in reading, writing, understanding and speaking English as indicated by one of the following:

- Test out of the English Placement Test (or equivalent), or
- Satisfactory completion of EN097 courses and
- Test out of the Math Placement Test (or equivalent), or
- Satisfactory completion of MA098 course

\*Students in the Certificate of Construction Technology program can successfully complete their math requirements with MA094 Mathematics for the Trades in lieu of MA098 Intermediate Algebra.

B. Major Requirements. Total Major Requirements vary by program. Minimum Total Credits Required for a Certificate is 30 credits.

\* No course may be counted for both Major and General Education requirements.

\*\* Placement testing is not mandatory for admission to the College. Completion of placement testing or equivalent, however, is required for enrollment into English and mathematics courses. Therefore, students who plan to enroll full-time in a program should take the placement test to be eligible for a full load of courses.

2024-2025 College Catalog

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## [Student Learning Outcomes](#)

Upon successful completion of the Certificate in Construction Technology program, students will be able to:

1. Demonstrate basic skills needed to function as an entry-level worker in at least one construction trades concentration area in

- accordance with industry safety standards: carpentry; electricity; heating, ventilation, and air-conditioning (HVAC); masonry; plumbing; reinforcing metal worker; or welding.
2. Exhibit entry-level knowledge in chosen construction trades concentration area.
  3. Demonstrate professionalism as related to the construction trades industry.

**Check out some of these amazing Certificate in Construction Technology - Heating, Ventilation, and Air-Conditioning (HVAC) courses...**

#### **CT185C Refrigeration and Air Conditioning Level III**

This course introduces students to core principles in air conditioning and refrigeration, providing them with basic knowledge necessary for more advanced study and experiential development of skills in Construction Trades. Specific instructional emphasis is placed on alternating current, introduction to control circuit troubleshooting, metering devices, and leak detection, evacuation, recovery and charging. This course focuses on the use, care, safe operations and maintenance of equipment; the use, care and safe handling of supplies and materials; the development of an appropriate attitude as related to professional refrigeration and air conditioning work, and the acquisition of knowledge and information essential for success in initial pursuit of a career in the air conditioning and refrigeration trade.

[+ More Info](#) [1]

#### **CT185B Refrigeration and Air Conditioning Level II**

This course introduces students to core principles in air conditioning and refrigeration, providing them with basic knowledge necessary for more advanced study and experiential development of skills in Construction Trades. Specific instructional emphasis is placed on introductory HVAC, trade mathematics, tools, air distribution systems, chimneys, vents and flues, and maintenance skills for the service technician. This course focuses on the use, care, safe operations and maintenance of equipment; the use, care and safe handling of supplies and materials; the development of an appropriate attitude as related to professional refrigeration and air conditioning work, and the acquisition of knowledge and information essential for success in initial pursuit of a career in the air conditioning and refrigeration trade.

[+ More Info](#) [2]

#### **CT185A Refrigeration and Air Conditioning Level I**

This course introduces students to core principles in air conditioning and refrigeration, providing them with the foundational knowledge necessary for more advanced study and experiential development of skills in Construction Trades. Specific instructional emphasis is placed on refrigeration and air conditioning safety, blueprint reading, copper and plastic piping, soldering and brazing, ferrous metal piping, basic electricity, and introduction to cooling. This course focuses on the use, care, safe operation and maintenance of equipment; the use, care and safe handling of supplies and materials; the development of an appropriate attitude as related to professional refrigeration and air conditioning work, and the acquisition of knowledge and information essential for success in initial pursuit of a career in the air conditioning and refrigeration trade.

[+ More Info](#) [3]

You may also be interested in these related Programs...



[4]

[Certificate in Construction Technology - Masonry](#) [4]

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[+ More Info](#) [4]



[5]

[Certificate in Construction Technology - Plumbing](#) [5]

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[+ More Info](#) [5]



[6]

[Certificate in Construction Technology - Electricity](#) [6]

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[+ More Info](#) [6]