



Air Conditioning, Heating & Refrigeration Technology (10-601-1)

Associate of Applied Science
Effective 2018/2019



The course sequence shown on this sheet is the recommended path to completion of the program and reflects how courses are regularly scheduled. Courses will be scheduled in the terms indicated here. Courses may be taken out of sequence as long as requisites are met.

√	Course Number	Course Title	Requisites	Notes	Credits	Terms Offered
	103-143	Computers for Professionals	Prereq: 103-142	1,4	3	FA, SP
	601-110	* Air Condition Fundamentals		4	3	FA, SP, SU
	601-111	* Workplace Fundamentals			1	FA, SP, SU
	601-116	* Mechanical Fundamentals			3	FA, SP
	605-107	Fundamentals of Electricity/Electronics			3	FA, SP
	804-107	College Mathematics	Prereq: 834-109	1,4	3	FA, SP, SU
	601-121	* Heating Systems	Prereq: 601-110		3	SP
	601-128	* Electrical Controls & Systems	Prereq: 605-107		3	SP
	801-136	English Composition 1	Prereq: 831-103	1,4	3	FA, SP, SU
	801-196	Oral / Interpersonal Communication	Prereq: 838-105	1	3	FA, SP, SU
	809-196	Sociology, Introduction to	Prereq: 838-105	1,3,4	3	FA, SP, SU
	601-129	* HVAC Systems	Prereq: 601-110; 601-116		3	FA
	601-131	* Heating Systems Applications	Prereq: 601-121	5	3	FA
	601-133	* Refrigeration Fundamentals			3	FA
	601-147	* Control Circuit Applications	Prereq: 601-128		3	FA
	801-197	Technical Reporting	Prereq: 801-136		3	FA, SP, SU
	601-130	* HVAC Blueprint Reading			2	SP
	601-143	* Refrigeration Applications	Prereq: 601-110; 601-116; 601-133	5	3	SP
	601-145	* Electronic Energy Management	Prereq: 601-147; 103-143		3	SP
	601-148	* HVAC Electrical Troubleshooting/Repair	Prereq: 601-147; 103-143		3	SP
	809-195	Economics	Prereq: 838-105	1	3	FA, SP, SU
	809-198	Psychology, Introduction to	Prereq: 838-105	1,3,4	3	FA, SP, SU
Take 6 elective credits. Any associate degree course may be taken as an elective. Over for suggested electives.					6	
Minimum Program Total Credits Required					69	

Air Conditioning, Heating & Refrigeration Technology (10-601-1)

Air Conditioning, Heating & Refrigeration Technology develops the skills and knowledge necessary for state and federal certification. Theory and practical hands-on experience in the troubleshooting, repair, and installation of residential and commercial HVAC/R systems are emphasized. Students will practice on modern and advanced equipment, incorporating microprocessor controls, and building automation technology. Topics covered during lecture and lab hours include complete heating, air conditioning and refrigeration systems, how components interact, and total system performance. Refrigerant handling certification is encouraged and is dependent upon successful completion by the individual student.

Program Learning Outcomes

Graduates will be able to:

1. Install HVAC/R components
2. Service HVAC/R systems
3. Troubleshoot HVAC/R systems
4. Evaluate HVAC/R system designs

Core Abilities

Gateway's nine core abilities are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will be able to:

1. Act responsibly.
2. Communicate clearly and effectively.
3. Demonstrate essential computer skills.
4. Demonstrate essential mathematical skills.
5. Develop job seeking skills.
6. Respect themselves and others as members of a diverse community.
7. Think critically and creatively.
8. Work cooperatively.
9. Value learning.

Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must complete reading, writing, math, and computer skills placement assessments.
3. Students must submit official high school, GED, or HSED transcript.

Graduation Requirements

1. Minimum 69 credits with an average of 2.0 or above.
2. *Average of 2.0 ("C") or above for these major courses.

For a complete list of Graduation Requirements, check the Student Handbook.

Program Offerings

	Location(s)	Starting Term(s)
Days	Kenosha	FA

Suggested Electives

442-101 Welding Basics
601-114 Power Plant Op Engineer

806-128 Descriptive Physics

Notes

1. A satisfactory placement test score (or successful remediation) is required prior to enrollment. See an advisor for details.
2. Safety glasses are required in labs. If prescription safety glasses are required, allow a minimum of 90 days.
3. Transfer credits in Social Science may substitute for this course. See an advisor for details.
4. A credit for prior learning assessment is available for this course. For more information, please contact cfpl@gtc.edu.
5. Students who take 601-113 (Facility Operating Engineer LP) and 601-117 (Facility Operating Engineer HP) may omit these courses.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for a period of two years or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult Web Advisor for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.

EQUAL OPPORTUNITY EMPLOYER AND EDUCATOR/EMPLEADOR Y EDUCADOR QUE OFRECE IGUALDAD DE OPORTUNIDADES