

**INDUSTRY, MANUFACTURING AND CONSTRUCTION**

**GUIDED PATHWAY: AIR CONDITIONING AND REFRIGERATION TECHNOLOGY – RESIDENTIAL**

For more information, visit [www.dcccd.edu/ACR](http://www.dcccd.edu/ACR) and your academic advisor at Cedar Valley or Eastfield College.

This is an example course sequence for students interested in pursuing Residential – Air Conditioning and Refrigeration Technology. It does not represent a contract, nor does it guarantee course availability. Following this pathway will help you earn an Associate of Applied Science (AAS) degree<sup>ii</sup> in Air Conditioning and Refrigeration Technology-Residential. For official degree requirements, [click here](#).

The AAS degree in Residential – Air Conditioning and Refrigeration Technology is designed to train students to meet employment requirements in the field of residential air conditioning. This will include the installation, repair and maintenance of residential air conditioning equipment. Included in this program is the study of residential air conditioners, heat pumps, gas and electric furnaces, humidifiers, and the design of residential air conditioning systems. Throughout the entire program an emphasis is placed on current techniques used by service technicians. Gainful employment information for this degree can be found at [www.dcccd.edu/gainfulemp](http://www.dcccd.edu/gainfulemp). Courses that complete the Degree (D) and courses that complete the Residential - Technician I (RC1) and Residential - Technician III Level II (RC2) Certificate are noted below.

Visit [www.ntxccc.org/pathways](http://www.ntxccc.org/pathways) to view guided pathways created for students who complete an AAS degree and the options for transfer to complete a Bachelor of Applied Arts and Science. Speak with an academic advisor at your college to choose courses that will help you to transfer to a specific university.



  
ONLY Offered at  
CVC & EFC

**COLLEGE READINESS REQUIREMENTS (only for the AAS)**

Enrolling in one or more courses may be necessary if assessment activities and previous academic experiences indicate a need for additional knowledge and skills:

**READING & WRITING PLACEMENT**

TSI READING MET:  YES  NO  
TSI WRITING MET:  YES  NO

**MATH PLACEMENT**

TSI MATH MET:  YES  NO

**ENGLISH LANGUAGE PROFICIENCY**

ENGLISH PROFICIENCY:  YES  NO

IF TSI OR ENGLISH LANGUAGE PROFICIENCY NOT MET, INSERT COURSE(S) NEEDED

<input type="checkbox"/> DREA / DWRI / DIRW (CIRCLE ONE) _____	<input type="checkbox"/> DMAT _____	<input type="checkbox"/> ESOL _____
<input type="checkbox"/> OTHER: _____	<input type="checkbox"/> OTHER: _____	<input type="checkbox"/> OTHER: _____

Exemptions/waivers may exist. Speak with an academic advisor regarding placement in college readiness courses and your ability to enroll in core academic coursework.

**SEMESTER-BY-SEMESTER MAP FOR FULL-TIME STUDENTS<sup>iii</sup>**

All maps can be modified to fit the needs of part-time students

D	RC1	RC2	SEMESTER 1	ACTION ITEMS
♦	♦	♦	<b>HART 1401</b> – Basic Electricity for HVAC <sup>iv</sup>	<input type="checkbox"/> Meet with an advisor to confirm academic and career goals before the end of the semester. <input type="checkbox"/> Meet with a career advisor or coach to research your career options and opportunities for job shadowing.
♦	♦	♦	<b>HART 1403</b> – Air Conditioning Control Principles	
♦	♦	♦	<b>HART 1407</b> – Refrigeration Principles <sup>iv</sup>	
♦		♦	<b>ENGL 1301</b> – Composition I <sup>v</sup> (core course)	

**TOTAL SEMESTER CREDIT HOURS: 15**

D	RC1	RC2	SEMESTER 2	ACTION ITEMS
♦	♦	♦	<b>HART 1441</b> – Residential Air Conditioning	<input type="checkbox"/> Meet with your advisor to: <ul style="list-style-type: none"> <li>o File an official program of study audit, confirm or update your academic/career path and program of study.</li> <li>o Apply for the Residential – Technician I (RC1) Certificate Completion.</li> </ul>
♦	♦	♦	<b>HART 1445</b> – Gas and Electric Heating	
♦	♦	♦	<b>HART 2449</b> – Heat Pumps	
♦		♦	<b>Mathematics Elective<sup>v,vi</sup></b> (core course)	

**TOTAL SEMESTER CREDIT HOURS: 15**

D	RC1	RC2	SEMESTER 3	ACTION ITEMS
♦		♦	<b>HART 2438</b> – Air Conditioning Installation and Startup	<input type="checkbox"/> Meet with a career advisor or coach for assistance in preparing for job search. <input type="checkbox"/> Meet with a career advisor or coach for assistance in preparing for job search. <input type="checkbox"/> Meet with a faculty or career advisor regarding placement for the Cooperative Education course.
♦		♦	<b>HART 2445</b> – Residential Air Conditioning Systems Design	
♦			<b>Humanities/Fine Arts Elective<sup>vi</sup></b> (core course)	
♦			<b>SPCH 1311</b> – Introduction to Speech Communication (core course)	

**TOTAL SEMESTER CREDIT HOURS: 14**

D	RC1	RC2	SEMESTER 4	ACTION ITEMS
♦		♦	<b>HART 2436</b> – Air Conditioning Troubleshooting	<input type="checkbox"/> After reviewing your degree plan and program of study, apply for Graduation. <ul style="list-style-type: none"> <li>o Meet with your advisor to apply for the                             <ul style="list-style-type: none"> <li>▪ Auto Body Technology AAS.</li> <li>▪ Residential – Technician III (RC2) Level II Certificate.</li> </ul> </li> <li>o Sign up for Commencement.</li> </ul> <input type="checkbox"/> Join the <a href="#">Alumni Network!</a>
♦			<b>HART 1394</b> – Special Topics in Heating, Air Conditioning and Refrigeration Mechanic and Repairer <b>OR</b> <b>HART 2380</b> – Cooperative Education-Heating, Air Conditioning and Refrigeration	
♦			<b>PSYC 2301</b> – General Psychology (core course)	
♦		♦	Elective <sup>vii</sup>	
♦		♦	Elective <sup>vii</sup>	

**TOTAL SEMESTER CREDIT HOURS: 16**

**AAS DEGREE MINIMUM: 60 SEMESTER CREDIT HOURS | PATHWAY TOTAL: 60 SEMESTER CREDIT HOURS**

<sup>i</sup> Degree plans may change in later catalogs. You may use this pathway if you entered one of the seven colleges on or before this date.

<sup>ii</sup> Students must earn at least 25% of the credit hours (15 hours) required for graduation through instruction by the DCCCD college awarding the degree.

<sup>iii</sup> This is not an official degree plan. For official degree requirements, [click here](#).

<sup>iv</sup> Course is taught in a 5-week format.

<sup>v</sup> You must earn a grade of "C" or better in English 1301 and the selected college-level mathematics course.

<sup>vi</sup> There are several options to fulfill this requirement. See your academic advisor for a specific list.

<sup>vii</sup> Must select Elective course from the following: Any 3 credit-hour HART course not previously identified as part of the award pattern. **OR** Any 3 credit-hour course from: ACNT 1303, BUSI 1301, COSC 1301, SPAN 1300