



## **HVAC/R-Energy Management Engineering Technology A.A.S.**

Career Community: Building and Construction Trades

Curriculum Code: 1257

Effective: Fall 2025 – Summer 2030

### **Purpose of the Major**

This degree is for students interested in pursuing a Bachelor of Science Degree in HVAC/R Energy Management Engineering Technology. As this is a transfer engineering degree, be aware that this pathway contains a higher math requirement and students may need additional math prerequisite classes depending upon math placement levels.

### **Milestone**

In addition to the required General Education courses in Math and English, completion of HVAC 100 and HVAC 110 with a 2.0 or higher is a key component for success in completing this program. Knowledge obtained in these courses is the foundation for learning in other required courses. Students are encouraged to contact their faculty if they need additional assistance with learning the concepts presented in these courses.

### **Additional Information**

If students have already completed DCTM 102 with a grade of 2.0 or higher, that will satisfy the TECH 102 requirement. DCTM 102 will also fulfill the prerequisite for HVAC 110.

### **Contact Information**

For further information, including career options, course substitutions and waivers, etc., contact the Heating and Air Conditioning Program, West Campus Building, Room M127, telephone number 517-483-1570 or Student Services West Campus, West Campus Building, Room M106, telephone number 517-267-5452.

### **Major Required Courses**

Course Code	Course Title	Credit / Billing Hours
ACAD 100	First-Year Experience	1 / 1
COMM 130	Fundamentals Public Speaking	3 / 3
ENGL 121	Composition I	4 / 4
ENGL 124	Technical Writing	3 / 3
GEOG 200	World Regional Geography	4 / 4
HVAC 100	Fundamentals of HVAC	3 / 3
HVAC 110	Applied Electricity I	3 / 4
HVAC 111	Applied Electricity II	3 / 4
HVAC 120	Heating I	3 / 4
HVAC 130	Air Conditioning I	3 / 4
HVAC 201	Mechanical Code	4 / 4
HVAC 220	Heating II	3 / 4
HVAC 221	Introduction to Hydronics	3 / 4
HVAC 230	Air Conditioning II	3 / 4

Course Code	Course Title	Credit / Billing Hours
HVAC 240	Refrigeration I	3 / 4
HVAC 241	Refrigeration II	3 / 4
HVAC 251	Fund of Direct Digital Control	3 / 4
MATH 126	Precalculus	5 / 5
PHYS 120	The Art of Physics	4 / 5
TECH 102	General Industry Safety	2 / 3

Notes:

ACAD 100 may be waived when students meet one of the following College-approved waiver criteria:

- Completion of 12 college-level credits with minimum grades of 2.0 shown on the LCC transcript (including transfer, if applicable), or
- Employment in the field of, or a field related to, the degree being sought

Students wishing to waive ACAD 100 should contact their advisor.

### General Education – Applied Degrees

- English Composition or Applied English  
Major Required Courses will meet this requirement.
- English Composition (second course)/Communication or Applied Communication  
Major Required Courses will meet this requirement.
- Humanities and Fine Arts or Social Sciences or Applied Social Sciences  
Major Required Courses will meet this requirement.
- Mathematics or Applied Mathematics  
Major Required Courses will meet this requirement.
- Natural Sciences Lab or Applied Science and Technology Lab  
Major Required Courses will meet this requirement.

### **Additional Credits**

After completing the course and credit requirements as noted on this pathway, students who fall short of the 60-credit minimum required for an Associate Degree may select any course(s) needed to reach 60 credits, except those courses noted in number 7 in the [Institutional Requirements for Associate Degrees](#). Students are encouraged to use Degree Works and meet with an Advisor to ensure all requirements are met and for course recommendations.

### **Minimum Total Credit Hours**

62 credits / 74 billing hours

### **Recommended Course Sequence**

Semester I
ACAD 100
ENGL 124
HVAC 100 – Milestone course

Semester I
HVAC 110 – Milestone course
TECH 102

Semester II
ENGL 121
HVAC 111
HVAC 120
HVAC 130
MATH 126

Semester III
COMM 130
HVAC 220
HVAC 221
HVAC 230
HVAC 240

Semester IV
GEOG 200
HVAC 201
HVAC 241
HVAC 251
PHYS 120

*LCC makes every effort to limit revisions to the pathways during their effective timeframe. However, the College reserves the right to update certificate and degree titles, and make course changes as needed, without prior notice. The College also reserves the right to discontinue programs when warranted.*