

**LANSING COMMUNITY COLLEGE**

**Computer, Engineering/Manufacturing Industrial Technologies**

**Curriculum Code: 1257  
(Effective Fall 2018 –  
Summer 2023)**

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

This degree is a 2 + 2 for students interested in pursuing a Bachelor of Science Degree in HVAC/R Energy Management Engineering Technology from Ferris State University. 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.

**For More Information**

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.

<b>Semester I</b>	<b>Course Title</b>	<b>Prerequisites</b>	<b>Credit/Billing Hours</b>
<b>Global Perspectives and Diversity Core Area - <i>Select 1</i></b>			
HUMS 160	Mythology	Reading Level 5 and Writing Level 6	4 / 4
<b>Writing Core Area - <i>Select 1</i></b>			
ENGL 124	Technical Writing	Reading Level 5 and Writing Level 6 or (Reading Level 4 and Writing Level 4 and ENGL 099 concurrently)	3 / 3
<b>Program of Study Requirements</b>			
<i>Students who have already completed DCTM 102, ELTE 102, METS 102 or WELD 102 with a grade of 2.0 or higher may substitute one of these courses for HVAC 102. Any of these courses may also be used to fulfill the prerequisite for HVAC 110.</i>			
HVAC 100	Fundamentals of HVAC	Reading Level 3 and Writing Level 2	3 / 3
HVAC 102	Industrial/Construction Safety	Reading Level 3 and Writing Level 2	2 / 3
HVAC 110	Applied Electricity I	Minimum 2.0 in (HVAC 102 or DCTM 102 or ELTE 102 or METS 102 or WELD 102 or concurrently) and Reading Level 3 and Writing Level 2 and (Math Level 3 or minimum 2.0 in MATH 105 or MATH 106)	3 / 4
<b>Credits</b>			<b>15 / 17</b>

Semester II	Course Title	Prerequisites	Credit/Billing Hours
<b>Math Core Area - <i>Select 1</i></b>			
MATH 122	Precalculus II	(Minimum 2.0 in MATH 121 within 2 years or Math Level 7 within 2 years) and Reading Level 5 and Writing Level 4	4 / 4
<b>Program of Study Requirements</b>			
ENGL 121	Composition I	Reading Level 5 and Writing Level 6 or (Reading Level 4 and Writing Level 4 and ENGL 099 concurrently)	4 / 4
HVAC 111	Applied Electricity II	Minimum 2.0 in (HVAC 100 and HVAC 110) and Reading Level 3 and Writing Level 2 and Math Level 3	3 / 4
HVAC 120	Heating I	Minimum 2.0 in (HVAC 100 and HVAC 110) and Reading Level 3 and Writing Level 2 and Math Level 3	3 / 4
HVAC 130	Air Conditioning I	Minimum 2.0 in (HVAC 100 and HVAC 110) and Reading Level 3 and Writing Level 2 and Math Level 3	3 / 4
<b>Credits</b>			<b>17 / 20</b>
Semester III	Course Title	Prerequisites	Credit/Billing Hours
<b>Communication Core Area - <i>Select 1</i></b>			
COMM 130	Fund of Public Speaking	Reading Level 5 and Writing Level 6	3 / 3

<b>Program of Study Requirements</b>			
HVAC 220	Heating II	Minimum 2.0 in (HVAC 111 and HVAC 120) and Reading Level 3 and Writing Level 2 and Math Level 3	3 / 4
HVAC 221	Introduction to Hydronics	Minimum 2.0 in HVAC 120 and Reading Level 3 and Writing Level 2 and Math Level 3	3 / 4
HVAC 230	Air Conditioning II	Minimum 2.0 in (HVAC 111 and HVAC 130) and Reading Level 3 and Writing Level 2 and Math Level 3	3 / 4
HVAC 240	Refrigeration I	Minimum 2.0 in (HVAC 230 or concurrently) and Reading Level 3 and Writing Level 2 and Math Level 3	3 / 4
<b>Credits</b>			<b>15 / 19</b>
<b>Semester IV</b>	<b>Course Title</b>	<b>Prerequisites</b>	<b>Credit/Billing Hours</b>
<b>Science Core Area - <i>Select 1</i></b>			
PHYS 120	The Art of Physics	Reading Level 5 and Writing Level 6 and (Math Level 5 or MATH 107 concurrently or MATH 109 concurrently)	4 / 5
<b>Program of Study Requirements</b>			
GEOG 200	World Regional Geography	Reading Level 5 and Writing Level 6 and (Math Level 4 or minimum 2.0 in MATH 105 or MATH 106)	4 / 4
HVAC 201	Mechanical Code	Minimum 2.0 in (HVAC 120 and HVAC 130) and Reading Level 3 and Writing Level 2 and Math Level 3	4 / 4
HVAC 241	Refrigeration II	Minimum 2.0 in HVAC 240 and Reading Level 3 and Writing Level 2 and Math Level 3	3 / 4
HVAC 251	Fund of Direct Digital Control	Minimum 2.0 in (HVAC 230 or concurrently) and Reading Level 3 and Writing Level 2 and Math Level 3	3 / 4
<b>Credits</b>			<b>18 / 21</b>
<b>Total Credits</b>			<b>65 / 77</b>