

20-21 Heating, Ventilation, Air Conditioning, and Refrigeration Technology - Stackable Credential Alignment

HVAC Specialized Diploma		
Course #	First Semester	Credits
COLS101	College Success	1
Certificate/AAS ONLY Course Addition ----->>>		
EMEC 101	Electrical Fundamentals	3
EMEC 114	Mechanical Skills for the Trades	2
HVAC 101	Fundamentals of HVAC/R I	4
MATH 103	Applications in Mathematics	3
OSAH 101	Construction Outreach Safety Edu	<u>1</u>
		14
Second Semester		
CMGT 104	Construction Print Reading	3
ELTC 107	Wiring I	3
Certificate/AAS ONLY Course Addition ----->>>		
HVAC 102	Fundamentals of HVAC/R II	3
HVAC 124	Heating: Gas, Oil, Solar Thermal. . .	4
HVAC 140	Heat Pump Systems	<u>2</u>
		<u>15</u>
	Total Credits	29

Bold courses carry through Cert. and AAS programs

Italic courses must complete to achieve Cert or AAS

HVAC/R Certificate		
Course #	First Semester	Credits
COLS101	College Success	1
<i>CISC 101</i>	<i>Introduction to Computers</i>	3
EMEC 101	Electrical Fundamentals	3
EMEC 114	Mechanical Skills for the Trades	2
HVAC 101	Fundamentals of HVAC/R I	4
MATH 103	Applications in Mathematics	3
OSAH 101	Construction Outreach Safety Edu	<u>1</u>
		17
Second Semester		
CMGT 104	Construction Print Reading	3
ELTC 107	Wiring I	3
<i>ENGL 101</i>	<i>English I</i>	3
HVAC 102	Fundamentals of HVAC/R II	3
HVAC 124	Heating: Gas, Oil, Solar Thermal. . .	4
HVAC 140	Heat Pump Systems	<u>2</u>
		18
Third and Fourth Semesters (Sequence varies)		
EMEC 135	Electrical Motors and Controls	4
HVAC 204	Refrigeration Troubleshooting	3
HVAC 250	Airflow and Distribution	3
-----	Technical Electives **	<u>6/8</u>
		<u>16-18</u>
	Total Credits	51-53

HVAC/R Associates in Applied Science (AAS)		
Course #	First Semester	Credits
COLS101	College Success	1
<i>CISC 101</i>	<i>Introduction to Computers</i>	3
EMEC 101	Electrical Fundamentals	3
EMEC 114	Mechanical Skills for the Trades	2
HVAC 101	Fundamentals of HVAC/R I	4
MATH 103	Applications in Mathematics	3
OSAH 101	Construction Outreach Safety Edu	<u>1</u>
		17
Second Semester		
CMGT 104	Construction Print Reading	3
ELTC 107	Wiring I	3
<i>ENGL 101</i>	<i>English I</i>	3
HVAC 102	Fundamentals of HVAC/R II	3
HVAC 124	Heating: Gas, Oil, Solar Thermal. . .	4
HVAC 140	Heat Pump Systems	<u>2</u>
		18
Third Semester		
<i>CMTH 102</i>	<i>Speech Communication</i>	3
EMEC 135	Electrical Motors and Controls	4
<i>ENGL 151T</i>	<i>English II +</i>	3
<i>PHYS 152</i>	<i>Physical Science II</i>	3
-----	Technical Elective ++	<u>3</u>
		16
Fourth Semester		
HVAC 204	Refrigeration Troubleshooting	3
HVAC 250	Airflow and Distribution	3
-----	General Education Elective*	3
-----	General Education Elective*	3
-----	Elective (Cert. Tech applies)	<u>3</u>
		<u>15</u>
	Total Credits	66

**Tech Elctvs: Any CADM, EMEC, ELEC, ELTC, ENGG, CHEM, CISC, or WELD except CADM 100, EMEC 115, ENGG 100, OR ENGG117

******SCHEDULING WITH HVAC ADVISOR IS CRITICAL FOR SUCCESS**

E-mail: dphilipps@northampton.edu Office: 610-332-6258

*Selection of General Education Electives must satisfy the Writing Intensive and Diversity requirements for an AAS degree