

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

HVAC Specialized Diploma			HVAC/R Certificate			HVAC/R Associates in Applied Science (AAS)					
Course #	First Semester	Credits	Course #	First Semester	Credits	Course #	First Semester	Credits			
COLS101	College Success	1	COLS101	College Success	1	COLS101	College Success	1			
Certificate/AAS ONLY Course Addition ----->>>>			<i>CISC 101</i>	<i>Intro to Information Technology</i>	3	<i>CISC 101</i>	<i>Intro to Information Technology</i>	3			
ELTC 101	Electrical Fundamentals	3	ELTC 101	Electrical Fundamentals	3	ELTC 101	Electrical Fundamentals	3			
EMEC 114	Mechanical Skills for the Trades	2	EMEC 114	Mechanical Skills for the Trades	2	EMEC 114	Mechanical Skills for the Trades	2			
HVAC 101	Fundamentals of HVAC/R I	4	HVAC 101	Fundamentals of HVAC/R I	4	HVAC 101	Fundamentals of HVAC/R I	4			
MATH 103	Technical Mathematics	3	MATH 103	Technical Mathematics	3	MATH 103	Technical Mathematics	3			
OSAH 101 or (OSAH102**)	Industry Outreach Safety Education	<u>1</u> 14	OSAH 101 or (OSAH102**)	Industry Outreach Safety Education	<u>1</u> 17	OSAH 101 or (OSAH102**)	Industry Outreach Safety Education	<u>1</u> 17			
Second Semester			Second Semester			Second Semester					
CMGT 104	Construction Print Reading	3	CMGT 104	Construction Print Reading	3	CMGT 104	Construction Print Reading	3			
ELTC 107	Wiring I	3	ELTC 107	Wiring I	3	ELTC 107	Wiring I	3			
Certificate/AAS ONLY Course Addition ----->>>>			<i>ENGL 101</i>	<i>English I</i>	3	<i>ENGL 101</i>	<i>English I</i>	3			
HVAC 102	Fundamentals of HVAC/R II	3	HVAC 102	Fundamentals of HVAC/R II	3	HVAC 102	Fundamentals of HVAC/R II	3			
HVAC 124	Heating: Gas, Oil, Solar Thermal. . .	4	HVAC 124	Heating: Gas, Oil, Solar Thermal. . .	4	HVAC 124	Heating: Gas, Oil, Solar Thermal. . .	4			
HVAC 140	Heat Pump Systems	<u>2</u>	HVAC 140	Heat Pump Systems	<u>2</u>	HVAC 140	Heat Pump Systems	<u>2</u>			
		<u>15</u>			18			18			
Total Credits			Third and Fourth Semesters (Sequence varies)			Third Semester					
**OSAH101 is Recommended for Construction Trades Bold courses carry through Cert. and AAS programs <i>Italic courses must complete to achieve Cert or AAS</i>			ELTC 135	Electrical Motors and Controls	4	<i>CMTH 102</i>	<i>Intro to Communication</i>	3			
			HVAC 204	Refrigeration Troubleshooting	3	ELTC 135	Electrical Motors and Controls	4	<i>ENGL 151T</i>	<i>English II +</i>	3
			HVAC 250	Airflow and Distribution	3	<i>PHYS 152</i>	<i>Physical Science II</i>	3	-----	Technical Elective ***	<u>3</u>
			-----	Technical Electives ***	<u>6/8</u>			16			16
					<u>16-18</u>			51-53			17
Total Credits			Total Credits			Fourth Semester					
					51-53	HVAC 204	Refrigeration Troubleshooting	3			
			HVAC 250	Airflow and Distribution	3	-----	<i>General Education Elective</i>	3			
			-----		3	-----	<i>General Education Elective</i>	3			
			-----		3	-----	Elective (Cert. Tech applies)	<u>3</u>			
					<u>17</u>			66			
Total Credits			Total Credits			Total Credits					

***Tech Elctvs: Any CADM, EMEC, ELEC, ELTC, ENGG, CHEM, CISC, or WELD.
(Ineligible electives: CADM 100, CADM117, or EMEC 115)

*In conjunction with HVAC101, the seminar/testing session: EPA Refrigerant Usage Certification is offered.

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

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