NORTHAMPTON

Heating, Ventilation, Air Conditioning & Refrigeration (HVAC/R)-Certificate (2024-2025 Catalog)

Develop	mental Edu	nental Education Courses (if required)				
	ACLS050	Introduction to Academic Literacy				
	ENGL027	Writing Skills Workshop				
	MATH020	Pre-Algebra				

Placement in English and/or Mathematics must first be determined by <u>official</u> transcripts and/or placement testing. Developmental education courses are only taken if needed based on a student's placement; these courses would be in addition to the courses outlined below. Developmental education courses may extend the timeline to degree completion.

Transferring credits into NCC: Official transcripts are required; awarded credit will appear in Workday's Academic Progress.

	complete	Course #	Course Title	Credits	Prerequisites / Corequisites/Notes
		COLS101	College Success	1	Exempt: COLS150 or 12+ transfer credits & 2.0 GPA
		CISC101	Introduction to Information Technology	3	
		ELTC101	Electrical Fundamentals	3	
ır 1		EMEC114	Mechanical Skills for the Trades	2	
ste		HVAC101	Fundamentals of HVAC/R I	4	PRE/CO: ELTC101
Semester			Construction Industry Outreach Safety Education or General Industry Outreach Safety Education	1	*OSAH101 is recommended
		MATH103	Technical Mathematics	3	PRE: MATH020 w/C or MATH Placement
			Total Semester Credits:	17	
		CMGT104	Construction Print Reading	3	
2		ELTC107	Electrical Wiring I	3	PRE: ELTC101
		ENGL101	English I	3	PRE: ENGL Placement Policy
est		HVAC102	Fundamentals of HVAC/R II	3	PRE: ELTC101, HVAC101
Semester		HVAC124	Heating, Gas, Oil, Solar, Thermal, Air & Hydronic Systems	4	PRE: ELTC101
S		HVAC140	Heat Pump Systems	2	PRE: ELTC101, HVAC101
			Total Semester Credits:	18	
4		ELTC135	Electrical Motors and controls	4	PRE: ELTC101
3/4		HVAC204	Refrigeration System Design and Troubleshooting	3	PRE: HVAC102
Semester		HVAC250	Air Distribution Systems: Design, Installation, and Testing	3	PRE: ELTC101, HVAC101
em			Technical Electives	3-4	
S			Technical Electives	3-4	
			Total Semester Credits:	16-18	
			Total Degree Credits	51-53	

Program Notes:

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

Technical Electives:

Any CADM, EMEC, ELEC, ELTC, ENGG, CHEM, CISC, or WELD course. Recommended is HVAC265 – Building Automation Systems (BAS)

Ineligible electives: CADM100, CADM117, or EMEC115

^{*}It is the student's responsibility to be knowledgeable of NCC graduation requirements and, if applicable, to verify transfer requirements with the 4-year institution. Courses listed on the program map are based upon the assumption that prerequisites and courses taken in previous semesters will be successfully completed.