

## HEATING, VENTILATION, A/C, REFRIGERATION

### Air Conditioning and Refrigeration Service Certificate

*This 29 credit-hour certificate program is designed to provide students the skill set to perform preventative maintenance, service and repairs on residential and commercial air conditioning and refrigeration systems. Emphasis is placed on practical application to perform system diagnostics and develop troubleshooting techniques.*

**Required:**

Number	Course Title	Credits
ELT 110	Introductory Electronics .....	4
ELT 144	AC and DC Motors .....	2
ELT 145	Variable Frequency Drives .....	2
HVA 101	Refrigeration Fundamentals .....	3
HVA 102	Refrigeration Systems .....	3
HVA 105	Heating and Cooling Controls .....	3
HVA 106	Pneumatic Controls Systems .....	3
HVA 107	Commercial Air Conditioning Systems .....	3
HVA 108	Domestic Refrigeration Appliances .....	3
MTH 097	Basic Technical Mathematics <sup>1</sup> .....	3

<sup>1</sup> Students may take MTH 097 or MTH 101 or higher.