

## Residential HVAC Technician

| Division       | Cluster                                | Pathway                       | State Program Area                                 | Local Program (Career Major)       |
|----------------|--|-------------------------------|--|------------------------------------|
| <i>T&amp;I</i> | <i>Architecture &amp; Construction</i> | <i>Maintenance/Operations</i> | <i>Heating, Ventilation &amp; Air Conditioning</i> | <i>Residential HVAC Technician</i> |

| <b>Residential HVAC Technician<br/>(1050 hours)</b>            |   |                       |
|--|---|-----------------------|
| Hours  | Course Title  | Year/Class (AM or PM) |
| <b><i>Full-Time Adult<br/>Student Semester 1 (270 hrs)</i></b> |   |                       |
| 30   | Introduction to HVACR: Safety, Tools, and Equipment | Year 1                |
| 60   | Principles of Thermodynamics and Heat Transfer      | Year 1                |
| 45   | Piping and Piping Practices                         | Year 1                |
| 60   | Electricity for HVAC/R                              | Year 1                |
| 45   | HVAC/R Controls                                     | Year 1                |
| 30   | HVAC/R Solid State Electronics                      | Year 1                |
| <b><i>Full-Time Adult<br/>Student Semester 1 (270 hrs)</i></b> |   |                       |
| 15   | Load Calculations                                   | Year 1                |
| 90   | Refrigerant System Components                       | Year 1                |
| 120  | Air Conditioning Systems                            | Year 1                |
| 15   | Refrigerants and Lubricants                         | Year 1                |
| 15   | Refrigerant Recovery                                | Year 1                |
| 15   | Refrigerant Retrofit                                | Year 1                |

| HVAC |              |                        |
|------|--------------|------------------------|
| Hrs  | Course Title | Quarter/Semester/AM/PM |

| <b>Full-Time Adult Student<br/>Semester 2 (210 hrs)</b> |   |        |
|---|---|--------|
| 30  | Heat Pumps  | Year 1 |
| 120   | Heating Systems   | Year 1 |
| 15  | Indoor Air Quality  | Year 1 |
| 45  | Air Handling  | Year 1 |
| <b>Full-Time Adult Student<br/>Semester 2 (300 hrs)</b> |   |        |
| 120   | HVAC/R System Installation and Start-Up (Residential)     | Year 1 |
| 90  | HVAC/R System Servicing and Troubleshooting – Residential | Year 1 |
| 15  | HVAC/R Preventive Maintenance                             | Year 1 |
| 30  | HVAC/R Codes, Regulations, & Standards                    | Year 1 |
| 15  | Professional Service                                      | Year 1 |
| 30  | Workforce Staging   | Year 1 |

**\*\* 525 hours are completed at the end of each semester, course hours shown that extend the total beyond 525 during the first semester are carried over to the 2<sup>nd</sup> semester.**

**\*\*Part-Time Students will divide the courses above in to 2 years.**