

## **ASSOCIATE OF APPLIED SCIENCE**

# HEATING, VENTILATION, AIR CONDITIONING, AND REFRIGERATION TECHNOLOGY

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-134500

28.

Business, Engineering, and Information Technologies Division

Industrial Technology Department

| TECHNICAL<br>Course Number | Course Title   | Credits | Pre- and Co-Requisites   | Completed<br>Sem./Year |
|----------------------------|--|---------|--|------------------------|
| HVC121                     | HVAC Principles I  | 3       |  | Senna I car            |
| HVC122                     | HVAC Principles II   | 3       | Pre-Co-HVC121  |                        |
| HVC125                     | Sheet Metal Layout and Fabrication   | 4       |  |                        |
| HVC222                     | HVAC Design and Application  | 3       | HVC122   |                        |
| HVC223                     | HVAC System Operation and Troubleshooting – Heating                                    | 3       | HVC122   |                        |
| HVC224                     | HVAC System Operation and Troubleshooting – Cooling                                    | 3       | HVC122   |                        |
| HVC227                     | HVAC Field Installation Techniques and Procedures                                      | 4       | Pre-Co-HVC122  |                        |
| HVC234                     | HVAC Electrical Systems and Applications <sup>^</sup>                                  | 3       |  |                        |
|                            | CTIVES: 6 credit hours minimum   | -       |  |                        |
| HVC232                     | Hydronic Applications and Design   | 3       | HVC122   |                        |
| HVC235                     | Refrigeration  | 3       | HVC122   |                        |
| HVC237                     | HVAC Commercial Controls   | 3       | HVC122   |                        |
| HVC238                     | Chiller Operations   | 3       | HVC122   |                        |
|                            | Total  | 32      |  |                        |
| NON-TECH<br>Course Number  | Course Title   | Credits | Pre- and Co-Requisites   | Completed<br>Sem./Year |
| SSC101                     | Student Success Seminar^^  | 1       | Take first semester  |                        |
| AIT101                     | Basic Machines^^   | 2       | Take first semester  |                        |
| ITD122                     | Computer Applications for Professionals^   | 3       | ITD100 or Proficiency  |                        |
| PHY101                     | Principles of Physics (lab)^   | 4       | (MTH024 or MTH025 or<br>Proficiency) or MTH105 or<br>MTH107 and (IDS102 or<br>Proficiency) |                        |
| MTH107                     | Industrial Math^   | 3       |  |                        |
| or                         | or   | or      | Check for prerequisites  |                        |
| MTH125                     | College Algebra $^{\Lambda}$ $\Omega$  | 4       | cheen jor prerequisites  |                        |
| ENG124                     | College Composition^   | 3       | Co-ENG024 or Co-ENG011 or<br>Proficiency   |                        |
| ENG221                     | Technical Report Writing   | 3       | ENG124   |                        |
| COM121                     | Effective Speaking   | 3       | None   |                        |
| or                         | or   | or      | or   |                        |
| COM123                     | Small Group Communication^   | 3       | IDS102 or Proficiency  |                        |
|                            | Select one (1) Social & Behavioral Sciences or Arts & Humanities Elective <sup>3</sup> | 3       | Check for prerequisites  |                        |
| NON-TECH ELEC              | TIVES: 7 credit hours minimum  |         |  |                        |
| CET121                     | Building Materials and Construction Methods  | 3       |  |                        |
| DET125                     | Basic AutoCAD  | 3       |  |                        |
| ENV231                     | OSHA 30-Hour General Industry  | 2       |  |                        |
| MST121                     | Blueprint Reading  | 2       |  |                        |
| MST126                     | Pipefitting Principles and Applications  | 3       |  |                        |
|                            | Total  | 32-33   |  |                        |
|                            | TOTAL CREDIT HOURS   | 64-65   |  |                        |

See next page for footnote specifics

Students completing this degree may be eligible to also receive a Heating, Ventilation, Air Conditioning, and Refrigeration Technology -HVACR Technician (Level I) Career Enhancement Certificate (4505), Heating, Ventilation, Air Conditioning, and Refrigeration Technology – HVACR Technician (Level II) Career Enhancement Certificate (4506), and a Heating, Ventilation, Air Conditioning, and Refrigeration Technology One-Year Certificate (4501).

2025-26 Catalog

Effective Summer 2025

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## HEATING, VENTILATION, AIR CONDITIONING, AND REFRIGERATION TECHNOLOGY

4500

## FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

| <u>First Semester</u>   |  | Credit Hours   | Pre- and Co-requisites  |  |
|---|--|----------------|---|--|
| SSC101  | Student Success Seminar^^  | 1              | Take first semester   |  |
| AIT101  | Basic Machines^^   | 2              | Take first semester   |  |
| MTH107  | Industrial Math^   | 3              |   |  |
| or  | or   | or             | Check for prerequisites   |  |
| MTH125<br>HVC121  | College Algebra <sup>^</sup> Ω<br>HVAC Principles I                        | 4              |   |  |
| HVC121  | HVAC Principles I  | 3              | Pre-Co-HVC121   |  |
|   | Sheet Metal Layout and Fabrication   | -              | 110-00-11/0121  |  |
| HVC125  | Sheet Metal Layout and Fabrication   | <u>4</u>       |   |  |
|   |  | 16-17          |   |  |
| Second Semester   |  |                |   |  |
| ENG124  | College Composition <sup>^</sup>   | 3              | Co-ENG024 or Co-ENG011 or Proficiency   |  |
| ITD122  | Computer Applications for Professionals^                                   | 3              | ITD100 or Proficiency   |  |
| HVC227  | HVAC Field Installation Techniques and<br>Procedures                       | 4              | Pre-Co-HVC122   |  |
| HVC234  | HVAC Electrical Systems and Applications^                                  | 3              |   |  |
| Non-Technical Elective <sup>2</sup>                                     |  | <u>2</u>       | Check for prerequisites   |  |
|   |  | 15             |   |  |
| Third Semester  |  |                |   |  |
| COM121  | Effective Speaking   | 3              |   |  |
| or  | or   | or             |   |  |
| COM123<br>HVC222  | Small Group Communication^   | 3              | IDS102 or Proficiency<br>HVC122   |  |
| HVC222  | HVAC Design and Application<br>HVAC System Operation and Troubleshooting – | 3              | HVC122  |  |
| HVC225  | Heating  | 3              | HVC122  |  |
| HVC224  | HVAC System Operation and Troubleshooting –<br>Cooling                     | 3              | HVC122  |  |
| Non-Technical Elective <sup>2</sup>                                     |  | 2              | Check for prerequisites   |  |
| Social & Behavioral Sciences or Arts & Humanities Elective <sup>3</sup> |  | <u>3</u>       | Check for prerequisites   |  |
|   |  | 17             |   |  |
| Fourth Semester   |  |                |   |  |
| ENG221  | Technical Report Writing   | 3              | ENG124  |  |
| PHY101  | Principles of Physics (lab)^   | 4              | (MTH024 or MTH025 or Proficiency) or<br>MTH105 or MTH107 and (IDS102 or<br>Proficiency) |  |
| Non-Technical Elective <sup>2</sup>                                     |  | 3              | Check for prerequisites   |  |
| Technical Electives <sup>1</sup>  |  | <u>6</u>       | Check for prerequisites   |  |
|   |  | <u>-</u><br>16 | <i>J</i> <b>F - T - - T - - - T - - - T - - - - - - - - - -</b>                         |  |
|   |  |                |   |  |

^Based on SSC placement scores

^^To promote student success, this course should be taken in the first semester

ΩMTH125 should only be taken by students planning to transfer to a four-year institution

<sup>1</sup>Technical Electives: HVC232, HVC235, HVC237, HVC238

<sup>2</sup>Non-technical Electives: CET121, DET125, ENV231, MST121, MST126

<sup>3</sup>Social & Behavioral Sciences or Arts & Humanities electives: BUS122 (recommended), BUS221, BUS222, ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, HIS221, HIS222, PHL122 (recommended), PSC121, PSY121, PSY123, PSY124, PSY220, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225