Air Conditioning Technology  
ASSOCIATE OF APPLIED SCIENCE DEGREE (AAS)  
REQUIRED CREDITS: 63  
DEGREE CODE: AC-AAS

DESCRIPTION
This program prepares students to install, maintain, service, troubleshoot, and repair residential heating and cooling systems. Additionally, the program includes commercial refrigeration courses enabling students to learn how to maintain, troubleshoot, and repair walk-in freezers, ice machines, and other related machinery. Instruction includes classroom, laboratory, and hands-on work in the field. Along with core classes, academic skills emphasizing related math, science, and human relations components are stressed to help students prepare to meet challenges commonly found in the workplace.

STUDENT LEARNING OUTCOMES
• Incorporate workforce safety principals while performing basic tasks of a Heating, Ventilation, Air Conditioning, and Refrigeration (HVAC/R) technician.
• Interpret electrical/mechanical schematics on HVAC/R equipment to diagnose mechanical or electrical problems in a residential or light commercial environment.
• Appraise EPA rules, regulations, and refrigerant handling techniques in the performance of HVAC/R duties.
• Diagnose and repair electrical or mechanical problems on residential air conditioning equipment; light commercial air conditioning equipment; critical systems; boilers; chillers; equipment cooling systems.

PLEASE NOTE - The courses listed below may require a prerequisite or corequisite. Read course descriptions before registering for classes. All MATH and ENG courses numbered 01-99 must be completed before reaching 30 total college-level credits. No course under 100-level counts toward degree completion.

GENERAL EDUCATION REQUIREMENTS (22 CREDITS)

MATHEMATICS (3 credits)
Recommended: MATH 104B Applied Mathematics

ENGLISH COMPOSITION (3-5 credits)
ENG 100 or 101 or 107 or 113

COMMUNICATIONS (3 credits)
Recommended: COM 115 Applied Communication

HUMAN RELATIONS (3 credits)
Recommended: ALS 101 College Success

NATURAL SCIENCE (3 credits)
Recommended: ENV 101 Introduction to Environmental Science

FINE ARTS/HUMANITIES/SOCIAL SCIENCE (3 credits)
Recommended: GEOG 106 World Geography

U.S. AND NEVADA CONSTITUTIONS (4-6 credits)
Recommended: PSC 101 Introduction to American Politics

SPECIAL PROGRAM REQUIREMENTS (41 CREDITS)

CORE REQUIREMENTS (30 credits)

AC 102B  Introduction to HVAC Electrical Theory and Application  5
AC 103B  Introduction to HVAC Mechanical Theory and Application  5
AC 106B  Residential Gas Heating  5
AC 110B  Intermediate HVAC Electrical Theory and Application  5
AC 111B  Heat Pumps  5
AC 115B  Troubleshooting  5

Choose five credits from the following

AC 200B  Commercial Refrigeration I  5
AC 210B  Boiler Operation and Maintenance  5
AC 220B  Chiller Operations and Maintenance  5

Choose six credits from the following

AC 114B  Heat Load and Duct Design  5
AC 116B  Copper Fundamentals  1
AC 119B  Professionals in Customer Service  1.5
AC 120B  Air Conditioning Duct Work Fabrication  3
AC 201B  HVAC Automatic Controls  3
AC 202B  Commercial Refrigeration II  5
AC 210B  Boiler Operation and Maintenance  5
AC 212B  Equipment Cooling  5
AC 220B  Chiller Operations and Maintenance  5
AC 221B  Gas Heat Pump Technology I  5
CADD 100  Introduction to Computer Aided Drafting  3
CONS 120B  Construction Plans and Specifications  3

Choose one from the following (0-3 credits)

IS 100B  Core Computing Competency  0
IS 101  Introduction to Information Systems  3

See Degree Plan on next page.

NOTE • Course numbers with the “B” suffix may be non-transferable for a NSHE baccalaureate degree.
• Course numbers with the “H” suffix are designated Honors-level courses and can be used to fulfill equivalent general education requirements. For more information visit www.csn.edu/honors.
• In no case, may one course be used to meet more than one requirement except for the Values and Diversity general education requirement (only AA, AS, and AB degrees) which may be used to fulfill the corresponding general education or emphasis requirement.
• Students may elect to graduate using the degree requirements in effect at the time of matriculation, or when they declared or changed major or the current catalog. If a program is official after a student has matriculated, the student may choose the degree requirements of the new program. In no case may a student use a catalog which is more than six years old at the time of graduation.
# Air Conditioning Technology

**ASSOCIATE OF APPLIED SCIENCE DEGREE (AAS)**

**REQUIRED CREDITS: 63**

**DEGREE CODE: AC-AAS**

## FULL-TIME STUDENT DEGREE PLAN

Add more semesters to modify this plan to fit part-time student needs.

<table>
<thead>
<tr>
<th>Semester</th>
<th>Credits</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FIRST SEMESTER</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Math 104B Applied Mathematics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENG 100 or 101 or 107 or 113</td>
<td>3-5</td>
<td></td>
</tr>
<tr>
<td>AC 102B Introduction to HVAC Electrical Theory and Application</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>AC 103B Introduction to HVAC Mechanical Theory and Application</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL CREDITS</strong></td>
<td>16-18</td>
<td></td>
</tr>
</tbody>
</table>

| **SECOND SEMESTER** |         |                                                                         |
| COM 115 Applied Communication | 3       |                                                                         |
| ENV 101 Introduction to Environmental Science | 3       |                                                                         |
| AC 106B Residential Gas Heating | 5       |                                                                         |
| AC 110B Intermediate HVAC Electrical Theory and Application | 5       |                                                                         |
| **TOTAL CREDITS** | 16      |                                                                         |

| **THIRD SEMESTER** |         |                                                                         |
| ALS 101 College Success | 3       |                                                                         |
| GEOG 106 World Geography | 3       |                                                                         |
| AC 111B Heat Pumps | 5       |                                                                         |
| AC 200B or 210B or 220B | 5       |                                                                         |
| **TOTAL CREDITS** | 16      |                                                                         |

| **FOURTH SEMESTER** |         |                                                                         |
| PSC 101 Introduction to American Politics | 4       |                                                                         |
| AC 115B Troubleshooting | 5       |                                                                         |
| IS 100B or IS 101 | 0-3     |                                                                         |
| Complete “Choose six credits from the following” (see courses previous page) | 6       |                                                                         |
| **TOTAL CREDITS** | 15-18   |                                                                         |

**DEGREE PLAN TOTAL CREDITS** 63-68