

# 2023-2024 TTC Catalog - Air Conditioning and Refrigeration (ACR)

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## ACR 001 - Air Conditioning Non-Equivalent

**Lec:** 0 **Lab:** \* **Credit:** \*

Indicates credit given for air conditioning/refrigeration course work transferred from another college for which there is no equivalent at TTC. \*Hours vary depending on external course.

**Division:** Manufacturing and Maintenance

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## ACR 106 - Basic Electricity for HVAC-R

**Lec:** 3.0 **Lab:** 3.0 **Credit:** 4.0

### Course Offered

Fall

Spring

This course includes a basic study of electricity including Ohm's Law and series and parallel circuits as they relate to heating, ventilating, air conditioning and refrigeration systems.

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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## ACR 108 - Refrigeration Fundamentals

**Lec:** 2.0 **Lab:** 3.0 **Credit:** 3.0

### Course Offered

Fall

Spring

This course is an introduction to the principles of refrigeration.

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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## **ACR 109 - Tools and Service Techniques II**

**Lec:** 1.0 **Lab:** 3.0 **Credit:** 2.0

### **Course Offered**

Fall

Spring

This course is an advanced study of tools and service equipment used in the installation and repair of HVAC equipment.

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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## **ACR 111 - Gas Heating Principles**

**Lec:** 2.5 **Lab:** 1.5 **Credit:** 3.0

### **Course Offered**

Spring

Summer

This course is the study of residential and commercial gas burners and their components.

### **Prerequisite**

ACR 106

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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## **ACR 120 - Basic Air Conditioning**

**Lec:** 3.0 **Lab:** 3.0 **Credit:** 4.0

### **Course Offered**

Spring

Summer

This course is the study of various types of air conditioning equipment including electrical components, schematics and service to refrigeration circuits.

### **Prerequisite**

ACR 106

and

ACR 108

and

ACR 109

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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## **ACR 131 - Commercial Refrigeration**

**Lec:** 3.0 **Lab:** 3.0 **Credit:** 4.0

### **Course Offered**

Fall

Spring

This course is a study of maintenance and repair of commercial refrigeration systems.

### **Prerequisite**

ACR 106

and

ACR 108

and

ACR 109

and

### **Corequisite**

ACR 111

and

ACR 120

and

ACR 150

and

ACR 210

and

ACR 224

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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## **ACR 150 - Basic Sheet Metal**

**Lec:** 2.0 **Lab:** 0 **Credit:** 2.0

### **Course Offered**

Fall  
Summer

This course covers the tools and procedures required in the fabrication of ductwork.

**Prerequisite**

ACR 111  
and  
ACR 120

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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**ACR 210 - Heat Pumps**

**Lec:** 3.0 **Lab:** 3.0 **Credit:** 4.0

**Course Offered**

Fall  
Summer

This course is a study of theory and operational principles of the heat pump.

**Prerequisite**

ACR 106  
and  
ACR 108  
and  
ACR 109

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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**ACR 224 - Codes and Ordinances**

**Lec:** 2.0 **Lab:** 0 **Credit:** 2.0

**Course Offered**

Fall  
Spring  
Summer

This course covers instruction on how to reference appropriate building codes and ordinances where they apply to the installation of heating and air conditioning.

**Prerequisite**

ACR 111

and

ACR 120

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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