

REFRIGERATION APPLICATIONS CERTIFICATE - ACR7

The Refrigeration Applications Certificate provides students with the theory and hands-on training in the operation of refrigeration system design and component application. The certificate program will focus on installation, start-up, service repair and preventative maintenance of commercial and domestic refrigeration systems.

The students will be required to successfully complete the EPA 608 Refrigerant Handling Certification Exam in ACR 101 Fundamentals of Refrigeration and the Electrical Certification Exam in ACR 140 Automatic Controls.

Refrigeration applications graduates will have opportunities to work in the refrigeration industry in one or more of the following areas: service and repair of refrigeration systems, service and repair of domestic refrigeration systems, service and installation of food and vending refrigeration equipment and service and installation of supermarket equipment.

Requirements

Courses	Course Title	Credit Hours
Required Course Information		
ACR 101	Fundamentals of Refrigeration	5
ACR 105	Tools and Service Techniques I	1
ACR 106	Basic Electricity for HVAC/R	4
ACR 107	Wiring Diagrams	2
ACR 109	Tools and Service Techniques II	2
ACR 130	Domestic Refrigeration	4
ACR 131	Commercial Refrigeration	4
ACR 140	Automatic Controls	3
ACR 150	Basic Sheet Metal	2
ACR 160	Service Customer Relations	3
CPT 101 or CPT 169	Introduction to Computers Industrial Computer Applications	3
Subtotal		33
Total Hours		33

Graduation Plan

Fall Start

Course	Title	Hours
First Year		
Fall Semester		
ACR 101	Fundamentals of Refrigeration	5
ACR 105	Tools and Service Techniques I	1
ACR 106	Basic Electricity for HVAC/R	4

ACR 150	Basic Sheet Metal	2
Hours		12
Spring Semester		
ACR 109	Tools and Service Techniques II	2
ACR 131	Commercial Refrigeration	4
ACR 140	Automatic Controls	3
CPT 101 or CPT 169	Introduction to Computers or Industrial Computer Applications	3
Hours		12
Summer Semester		
ACR 107	Wiring Diagrams	2
ACR 130	Domestic Refrigeration	4
ACR 160	Service Customer Relations	3
Hours		9
Total Hours		33

Application and Advising

If you are ready to start your education, there are a few simple steps involved in enrolling at Piedmont Technical College.

Get Started Today (<https://www.ptc.edu/admissions/new-students/>)

Advising Information

The following information provides a guide for advisors who are helping students enroll in this program.

Program Notes

It is best to start in the fall semester. Place students in ACR classes even if they need developmental coursework. If a student wishes to enroll during spring or summer term, advise for general education courses. A student may also enroll in ACR 109 in the spring. In the summer a new student may also enroll in ACR 150 and ACR 160, but check with department head first.

Courses are offered during day and evening hours

Top-quality tools, meter and gauges, which are required for this program, will cost \$500 - \$700. There is a list at the bookstore, or you can contact Bill Cockrell for more information.

Program Student Learning Outcomes

Purpose Statement

The refrigeration application certificate is dedicated to assisting adult learners in the development of the skills and knowledge necessary to the student's success and to support their educational goals for employment and professional growth in the refrigeration field.

Program Student Learning Outcomes

1. Install, repair and service most light commercial refrigeration systems.
2. Use a wiring schematic in troubleshooting most air conditioning, heating, and refrigeration systems.



3. Use most of the tools and meters associated with the air conditioning and refrigeration industry.
4. Apply Fundamentals for repair, adjustment and maintenance of pneumatic controls used in most air conditioning systems.
5. Apply safety rules and regulations when working.
6. Install, repair and maintain most domestic refrigeration systems.