

# Piedmont Technical College Course Syllabus

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## COURSE INFORMATION

**Course Prefix/Number:** ACR 101

**Title:** Fundamentals of Refrigeration

**Responsible Division:** Engineering and Industrial

**Last Day to Withdraw from this Course:** For the last date to withdraw from this course, consult the current *Student Calendar*.

### Course Description:

For course, credit hour, pre-requisite(s) and co-requisite(s) information, visit the Detailed Course Information page: [www.ptc.edu/courses/ACR101](http://www.ptc.edu/courses/ACR101).

### Textbook and Other Materials:

For textbook information and additional required and/or supplemental materials, visit the [college bookstore](http://www.ptc.edu/bookstore) (www.ptc.edu/bookstore).

### Proctored Examinations:

Proctored examinations for distance learning courses taken at non-PTC campuses may require a proctoring fee for each exam taken.

## COURSE POLICIES

Course policies are available online through the *Academic Catalog* and *Student Handbook*. Visit the [Course Policies page](http://www.ptc.edu/syllabus/policies) (www.ptc.edu/syllabus/policies) for a detailed list of important policies and more information.

## GRADE POLICY

Detailed grading policy information can be found on the [Grading Policy webpage](http://www.ptc.edu/grading-policy) (http://www.ptc.edu/grading-policy). Final grade appeal information is available in the [Academic Catalog](http://www.ptc.edu/catalog/) (http://www.ptc.edu/catalog/).

## **ACCOMMODATIONS**

### **Accommodations for ADA:**

Information is available on the [Student Disability Services webpage](http://www.ptc.edu/ada) (<http://www.ptc.edu/ada>).

## **TITLE IX HARASSMENT AND SEXUAL ASSAULT INFORMATION**

In accordance with Title IX of the Education Amendments of 1972, Piedmont Technical College does not discriminate on the basis of sex in its education programs or activities. Title IX protects students, employees, and applicants from sex discrimination in admissions and employment to include discrimination based on gender identity or failure to conform to stereotypical notions of masculinity or femininity. More information regarding Title IX, including contact information for the Title IX coordinators, is available at [Title IX Harassment and Sexual Assault Information](https://www.ptc.edu/about/legal-disclosures/title-ix-harassment-and-sexual-assault-information) (<https://www.ptc.edu/about/legal-disclosures/title-ix-harassment-and-sexual-assault-information>).

## **RATIONALE**

### **Why do I need this course?**

Students of the HVACR mechanical/ electrical profession must understand how the basic refrigerant cycle system functions, and be familiar with the various refrigerants, refrigerant conditions and system components. Students of the HVAC/R profession must gain Federal EPA 608 Certification to lawfully handle and utilize refrigerants for the repair and installation of HVAC/R equipment.

## **PROGRAM INFORMATION**

For program information including required courses, program learning outcomes, gainful employment information and advisement information, refer to the Academic Program webpage. Go to [Academics](http://www.ptc.edu/academics) (<http://www.ptc.edu/academics>), select your program, and then select Credentials Offered.

## **COURSE STUDENT LEARNING OUTCOMES**

Upon successful completion of this course and/or clinical, each student will be able to:

- Attain EPA Section 608 Technician Certification.
- Demonstrate safe work practices.
- Interpret and explain the basic refrigeration cycle.
- Select and identify basic refrigeration components and their function.
- Interpret and apply the pressure/temperature relationship of refrigerants.
- Install, repair and service most light commercial refrigeration systems.

## **GENERAL EDUCATION COMPETENCIES**

### **Piedmont Technical College General Education Competencies for All Graduates:**

*This course may address one or more of the following General Education Competencies (assessment will be stated when applicable):*

#### **Communicate effectively.**

Assessment:

Students will read with comprehension information of the EPA 608 Federal certification. Students will then apply the information to successfully gain a minimum level of certification through proctored exam. The measure of success is to pass the core section of the certification and one area type (I, II or III). A score of 70% is required to pass a section.

#### **Apply mathematical skills appropriate to an occupation.**

Assessment:

NA

#### **Employ effective processes for resolving problems and making decisions.**

Assessment:

NA

#### **Demonstrate the basic computer skills necessary to function in a technological world.**

Assessment:

NA

*To validate proficiency in the general education competencies, students in some programs will be tested using Work Keys.*