

## AIR CONDITIONING

### ACR 101 AIR CONDITNG & REFRGRTN I

3 Lecture 6 Lab 5 Credit Hours(s)

This course will introduce the student to the basic theory of operation of simple refrigeration and air conditioning systems, heat transfer, materials, tools, installation techniques, and practices. Other topics included are measurements, heat and temperature, refrigerants and mechanical/electrical components. Personal and equipment safety will be stressed.

Prerequisite: None, but PHS 115 is recommended.

### ACR 102 AIR CONDITNG & REFRGRTN II

3 Lecture 15 Lab 8 Credit Hours(s)

This course is a continuation of ACR 101. The student will work with a variety of complex and larger cooling and heat pump systems. These systems will use combinations of controls to operate components in a sequential manner. The design of such control systems and their construction are included. In addition, special systems such as automatic ice machines and self-defrosting equipment will be used to develop trouble shooting techniques and problem solving skills. Students will be prepared for and given the opportunity to take the technician certification examination as specified by the Clean Air Act. Those who pass the exam will be duly certified. Personal and equipment safety will be stressed.

Prerequisite: ACR 101 or permission of the instructor.

### ACR 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of air conditioning and refrigeration or related areas. The student's time commitment to the project will be approximately 35-50 hours.

### ACR 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to ACR 271, except that the student's time commitment to the project will be approximately 70-90 hours.

### ACR 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to ACR 271, except that the student's time commitment to the project will be approximately 105-135 hours.