# 7/28/2020

# brcc keystone logo

Baton Rouge Community College

*Academic Affairs Master Syllabus*

Date Approved: 2 August 2020

Term and Year of Implementation: Fall 2020

**Course Title:** Residential Heat Pumps

**BRCC Course Rubric:** HACR 2124

**Previous Course Rubric**: HACR 2560

**Lecture Hours per week-Lab Hours per week-Credit Hours**: 3-2-4

**Per semester: Lecture Hours-Lab Hours-Instructional Contact Hours**: 45-30-75

**Louisiana Common Course Number:**

**CIP Code:** 47.0201

**Course Description:** Includes the principles of operation, installation, diagnosis, and service of heat pumps.

**Prerequisites:** HACR 1229, HACR 1234, and HACR 1245, all with grades of C or better

**Co-requisites:** HACR 2118

**Suggested Enrollment Cap:** 20

**Learning Outcomes.** *Upon successful completion of this course, the students will be able to:*

1. Describe the principles of operation of heat pumps.

2. Demonstrate the ability to install a heat pump.

3. Demonstrate the ability to diagnose a heat pump.

4. Demonstrate the ability to service a heat pump.

5. Demonstrate adherence to safety precautions and safe work practices.

**Assessment Measures.** Assessment of all learning outcomes will be measured using the following methods:

1. Assessment measures may include, but are not limited to, presentations, collaborative projects, in-class activities, field reports, homework, quizzes, and exams.

**Information to be included on the Instructor’s Course Syllabi:**

* ***Disability Statement*:** Baton Rouge Community College seeks to meet the needs of its students in many ways. See the Office of Disability Services to receive suggestions for disability statements that should be included in each syllabus.
* ***Grading:*** The College grading policy should be included in the course syllabus. Any special practices should also go here. This should include the instructor’s and/or the department’s policy for make-up work. For example in a speech course, “Speeches not given on due date will receive no grade higher than a sixty” or “Make-up work will not be accepted after the last day of class”.
* ***Attendance Policy*:** Include the overall attendance policy of the college. Instructors may want to add additional information in individual syllabi to meet the needs of their courses.
* ***General Policies*:** Instructors’ policy on the use of things such as beepers and cell phones and/or hand held programmable calculators should be covered in this section.
* ***Cheating and Plagiarism*:** This must be included in all syllabi and should include the penalties for incidents in a given class. Students should have a clear idea of what constitutes cheating in a given course.
* ***Safety Concerns:*** In some courses, this may be a major issue. For example, “No student will be allowed in the lab without safety glasses”. General statements such as, “Items that may be harmful to one’s self or others should not be brought to class”.
* ***Library/ Learning Resources:*** Since the development of the total person is part of our mission, assignments in the library and/or the Learning Resources Center should be included to assist students in enhancing skills and in using resources. Students should be encouraged to use the library for reading enjoyment as part of lifelong learning.

**Expanded Course Outline:**

1. Heat pump systems vs. conventional heating systems

2. Sequence of operation of a heat pump system

3. Heat pump electrical diagrams

4. Installing a heat pump system

5. Troubleshooting a heat pump system

6. Servicing a heat pump system

7. Repairing a heat pump system

8. Using a charging chart to charge a heat pump.

9. Diagnosing and replacing heat pump components