# 11/8/2020

# brcc keystone logo

Baton Rouge Community College

*Academic Affairs Master Syllabus*

Date Approved: 3 September 2020

Term and Year of Implementation: Spring 2021

**Course Title:** Pipefitting Level 1

**BRCC Course Rubric:** PIPE 1119

**Previous Course Rubric**: PIPE 1116

**Lecture Hours per week-Lab Hours per week-Credit Hours**: 3-12-9

**Per semester: Lecture Hours-Lab Hours-Instructional Contact Hours**: 45-180-225

**Louisiana Common Course Number:**

**CIP Code:** 46.0502

**Course Description:** Covers the National Center for Construction Education and Research (NCCER) Pipefitting Level 1 Modules 1 - 6: Orientation to the Trade, Pipefitting Hand Tools, Pipefitting Power Tools, Oxyfuel Cutting, Ladders and Scaffolds, and Motorized Equipment. Successful completion of this course requires passing the NCCER Level 1 Pipefitting Modules 1 – 6 Exams with a 70% or higher. This course requires a lab fee.

**Prerequisites:**  CORE 1003

**Co-requisites:** None

**Suggested Enrollment Cap:** 15

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

1. Explain the imporance of safety in relation to pipefitting.

2. Demonstrate the proper usage of selected pipefitter hand and power tools such as vises, wrenches, levels, fabrication tools, band saws, grinders, pipe threaders, power drives, and pipe bevelers.

3. Demonstrate the proper method to set up oxyfuel equipment, lighting and adjusting an oxyfuel torch, performing various oxyfuel cutting tasks, shutting down oxyfuel cutting equipment, and disassembly of oxyfuel cutting equipment.

4. Demonstrate the proper method to select, inspect, and use stepladders, straight and extension ladders, and tubular buck scaffolding.

5. Explain the operation and use of motor-driven equipment such as welding machines, portable generators, air compressors, portable pumps, aerial lifts, forklifts, campaction equipment, trenchers, backhoe loaders, and mobile cranes.

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

1. Practical demonstrations and skills performances.

2. Homework assignments, quizzes, and tests.

3. NCCER Pipefitting Level 1 Modules 1 - 6 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:**

I. Orientation to the Trade

A. Introduction to the Pipefitting Trade

B. Pipefitting Work

C. Opportunities in the Trade

D. Training Program

E. Responsibilities of the Employee

F. Human Relations

G. Safety Roles

II. Pipefitting Hand Tools

A. Safety

B. Vises

C. Stands

D. Pipe Wrenches

E. Levels

F. Pipe Fabrication Tools

G. Pipe Cutting Tools

H. Benders

I. Flaring Tools

III. Pipefitting Power Tools

A. Power Tool Safety

B. Cutting

C. Portable Grinders

D. Threading Machines

E. Special Threading Applications

F. Portable Power Drives

G. Power Bevelers

IV. Oxyfuel Cutting

A. Safety

B. Oxyfuel Cutting Equipment

C. Setting Up Oxyfuel Equipment

D. Torch Operations

E. Perform Cutting Operations

V. Ladders and Scaffolds

A. Ladders

B. Scaffolding

VI. Motorized Equipment

A. Generators

B. Welding Machines

C. Air Compressors

D. Portable Pumps

E. Aerial Lifts

F. Compaction Equipment

G. Forklifts

H. Backhoes

I. Trenchers

J. Cranes