# 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 3 Part 2

**BRCC Course Rubric:** PIPE 1326

**Previous Course Rubric**: PIPE 2326

**Lecture Hours per week-Lab Hours per week-Credit Hours**: 2-8-6

**Per semester: Lecture Hours-Lab Hours-Instructional Contact Hours**: 30-120-150

**Louisiana Common Course Number:**

**CIP Code:** 46.0502

**Course Description:** Covers the National Center for Construction Education and Research (NCCER) Pipefitting Level 3 Modules 6 - 9: Introduction to Above-Ground Pipe Installation, Field Routing and Vessel Trim, Pipe Hangers and Supports, and Testing Piping Systems and Equipment. Successful completion of this course requires passing the NCCER Level 3 Pipefitting Modules 6 – 9 Exams with a 70% or higher. This course requires a lab fee.

**Prerequisites:**  PIPE 1316

**Co-requisites:** None

**Suggested Enrollment Cap:** 15

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

1. Describe the types of flanges, gaskets, flange bolts, pipe hangers, pipe supports, and connecting units.

2. Interpret spool sheets and pipe support drawings and symbols.

3. Demonstrate the proper method to install pipe sleeves, floor penetrations, flanged piping systems, erection materials, test and slip blinds, hydrostat spools, concrete fasteners, toggle bolts, spring can supports, and pneumatic and mechanical test plugs in a pipeline.

4. Determine field run specifications, load weight for erection equipment, spool specifications, support needs, field placement of hangers, and the required rigging equipment based on weight, location, and configuration.

5. Perform pretest requirements, service tests, flow tests, head pressure tests, and hydrostatic tests.

**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 3 Modules 6 - 9 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. Introduction to Above-Ground Pipe Installation

A. Flanges

B. Gaskets

C. Pipe Flanges

D. Sleeves

E. Floor Penetrations

F. Spool Sheets

II. Field Routing and Vessel Trim

A. Preparation

B. Erection Materials

C. Test Blinds

D. Vessel Trim

III. Pipe Hangers and Supports

A. Pipe Hangers

B. Pipe Supports

C. Pipe Support Drawings and Symbols

D. Concrete Fasteners

E. Fabricating Brackets

F. Identifying Spring Can Supports

G. Installing Spring Can Supports

IV. Testing Piping Systems and Equipment

A. Pretest Requirements

B. Service and Flow Tests

C. Head Pressure Tests

D. Hydrostatic Testing

E. Pneumatic Testing

F. Equipment Testing

G. Steam Blow Testing