# 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:** Millwright Level 2 Part 2

**BRCC Course Rubric:** MILL 1226

**Previous Course Rubric**: MILL 1233

**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:** 47.0303

**Course Description:** Covers the National Center for Construction Education and Research (NCCER) Millwright Level 2 Modules 7 – 9. Successful completion of this course requires passing the NCCER Level 2 Modules 7 – 9 Exams with a 70% or higher. This course requires lab and exam fees.

**Prerequisites:**  MILL 1216

**Co-requisites:** None

**Suggested Enrollment Cap:** 20

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

1. Install baseplates and soleplates.

2. Field-verify a baseplate installation.

3. Explain the properties of lubricants, greases, additives, and lubricating oils.

4. Interpret a material safety data sheet (MSDS) and a lubrication chart.

5. Explain various types of bearings, bearing materials, and bearing parts.

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

1. Practical demonstrations and skills performances

2. Quizzes and tests

3. NCCER Millwright Level 2 Modules 7 – 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. Setting Baseplates and Soleplates

A. Establishing Baseplate Locations

a. Laying Out Baseplates and Soleplates

b. Establishing Plate Elevation

B. Setting Anchor Bolts

a. Setting Poured-in-Concrete Anchor Bolts

b. Setting Expanding Anchor Bolts

c. Setting Epoxy Anchors

C. Setting Shim Packs and Setting Up Piano Wire Jigs

a. Setting Shim Packs

b. Setting Up Piano Wire Jigs

D. Setting Baseplates and Soleplates

a. Setting Baseplate

b. Setting Soleplate

E. Field-Verification and Grouting

a. Field-Verification

b. Grouting

II. Lubrication

A. Lubricant Safety

a. Lubrication Safety

b. Occupational Safety and Health Administration (OSHA) Standards and Material Safety Data Sheet (MSDS)

c. Environmental Protection Agency (EPA) Standards and Waste Disposal

d. Lubricant Storage

B. Properties of Lubricants

a. Lubricant Film Protection

b. Properties of Lubricants and Greases

c. Selecting Lubricants

d. Additives

e. Lubricating Oils

C. Lubrication Equipment

a. Manual Lubrication Equipment

b. Power-Operated Lubrication Equipment

c. Lubrication Fittings

D. Lubrication Methods

a. Oiling Methods

b. Greasing Methods

E. Lubrication Charts

a. Interpreting Lubrication Charts

III. Introduction to Bearings

A. Plain Bearings

B. Ball Bearings

C. Roller Bearings

D. Thrust Bearings

E. Guide Bearings

F. Flanged Bearings

G. Pillow Block Bearings

H. Takeup Bearings

I. Bearing Materials