# 8/3/2020

# brcc keystone logo

Baton Rouge Community College

*Academic Affairs Master Syllabus*

Date Approved: 28 August 2020

Term and Year of Implementation: Fall 2020

**Course Title:** Safety, Health, and Environmen

**BRCC Course Rubric:** PTEC 2033

**Previous Course Rubric**: PTEC 203

**Lecture Hours per week-Lab Hours per week-Credit Hours**: 3-0-3

**Per semester: Lecture Hours-Lab Hours-Instructional Contact Hours**: 45-0-45

**Louisiana Common Course Number:**

**CIP Code:** 15.0799

**Course Description:** Introduces various types of plant hazards, safety and environmental systems and equipment, and regulations under which industry is governed. This course requires a lab fee.

**Prerequisites:**  None

**Co-requisites:** None

**Suggested Enrollment Cap:** 24

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

1. Identify the various types of Safety, Health, and Environmental hazards in a plant environment and the consequences of these hazards.

2. Demonstrate knowledge of the various types of hazard controls (administrative, engineering, personal protective equipment).

3. Discuss the fourteen elements of PSM (Process Safety Management) and how they work together for the safety of plant personnel.

4. Discuss how to respond to various types of emergencies (fires, spills, vapor releases, natural disasters, etc.).

5. Discuss the vulnerabilities, risks, and threats associated with the process industries (terrorists, cybersecurity, workplace violence, suspicious activities, etc.).

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

1. Assessment measures may include, but are not limited to, essays, presentations, speeches, portfolios, performances, individual and collaborative projects, in-class activities, lab reports, homework, computer-based training (CBTs) modules, quizzes, exams, industry-based standards, and/or simulated training activities.

**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. Introduction to Hazard Types
2. Soft Skills (Employability Skills)
3. Introduction to Hazard Types: Routes of Entry, Dose Response, Acute/Chronic Exposure
4. Introduction to Hazard Types: Environmental Effects of Hazardous Agents
5. Chemical Agents – Gases, Vapors, Solvents, and Particulates
6. Chemical Hazards – Process Fluids
7. Hazardous Chemical Categorization
8. Noise, Heat, Radiation, and Electricity
9. Fire, Explosion, and Detonation
10. Biological, Ergonomic & Plant-Specific Hazards
11. Plant-Specific Hazards
12. Engineering Controls – Alarms and Indication Systems
13. Engineering Controls –Process Containment and Process Upset Controls
14. Administrative Controls – Programs
15. Administrative Controls – Practices
16. Personal Protection Equipment – Overview
17. Monitoring Equipment - Overview
18. Permitting Systems
19. Fire, Rescue, and Emergency response Equipment
20. Regulatory Overview: Occupational Safety and Health Administration (OSHA) – Part I & II
21. Regulatory Overview: Environmental Protection Agency (EPA) – Parts I & II
22. Regulatory Overview: National Fire Protection Association (NFPA), Department of Transportation (DOT), State, and Others