PTEC C111: HEALTH, SAFETY, AND ENVIRONMENT

Item	Value
Curriculum Committee Approval Date	11/16/2007
Top Code	099900 - Other Engineering and Related Industrial Technologies
Units	3 Total Units
Hours	54 Total Hours (Lecture Hours 54)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	No
Basic Skills	Not Basic Skills (N)
Repeatable	No
Grading Policy	Standard Letter (S), • Pass/No Pass (B)

Course Description

This course will introduce various types of plant hazards, safety and environmental systems, equipment, and regulations. ADVISORY: PTEC C110. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Apply safety, health and environment procedures and regulations to various types of plant and equipment hazards in the workplace.

Course Objectives

- 1. List, describe, and analyze responses associated with industrial accidents that have impacted safety, health, and the environment.
- 2. Design a safety, health, and environmental accident response plan.
- 3. Collect safe work samples following practices used in industry.

Lecture Content

HAZARDS AND THEIR EFFECTS Chemical Biological Equipment and Energy Fire/Explosion Pressure, Temperature, Radiation Respiratory Workplace Environment Vehicle Transportation NATURAL DISASTERS SECURITY/CYBER SECURITY ERGONOMIC SITUATIONS ENVIRONMENT HAZARDS Chemicals EPA Regulations HAZARD CONTROL Engineering Administrative PPE ENGINEERING CONTROLS Alarms Process Containment PERMITTING SYSTEMS PERSONAL PROTECTIVE EQUIPMENT/FIRST AID MONITORING EQUIPMENT EMERGENCY RESPONSE

Method(s) of Instruction

- Lecture (02)
- DE Online Lecture (02X)

Instructional Techniques

A variety of instructional techniques will be employed to encompass different student learning styles. These may include, but are not limited to, lecture, discussion, projects and small group activities. Instruction will be supplemented, where appropriate, by digital media presentations resources, simulations, guest speakers and field trips.

Reading Assignments

Complete reading assignments assigned from the textbook, industry standards/codes, supplemental readings, handouts, internet resources, and any assignments from Coastlines Library.

Writing Assignments

Weekly projects, plans, revisions, discussion topic responses that will demonstrate skills application through authentic projects.

Out-of-class Assignments

Read the required materials, study for quizzes/exams, conduct research, and prepare documents, projects, to prepare papers or essays.

Demonstration of Critical Thinking

Demonstrate critical thinking by planning projects, and applying skills learned, as well as active participation in class discussions.

Required Writing, Problem Solving, Skills Demonstration

Calculations of temperature, exposure rates and impact calculations. 4 Scenario based problem solving assignments.

Eligible Disciplines

Electromechanical technology (industrial mechanical technology): Any bachelors degree and two years of professional experience, or any associate degree and six years of professional experience. Environmental technologies (environmental hazardous material technology, ha...: Any bachelors degree and two years of professional experience, or any associate degree and six years of professional experience. Industrial technology (foundry occupations): Any bachelors degree and two years of professional experience, or any associate degree and six years of professional experience. Mining and metallurgy (oil field operations): Any bachelors degree and two years of professional experience, or any associate degree and six years of professional experience.

Textbooks Resources

1. Required Center for Advancement of Process Tech. Safety Health and Environment, Custom ed. 9780137004010: Pearson, 2016 Rationale: Rationale Legacy Textbook Transfer Data: Legacy text

Other Resources

1. Coastline Library