Lassen Community College Course Outline

IT 22 Operations, Maintenance and Safety 1.0 Unit

I. Catalog Description

This course integrates personnel safety, equipment protection and safety tagging procedures with operational and maintenance event expected in a power generation, process or geo-thermal plant. Specific topics include safety data sheets (SDS), hazardous materials (HAZ/MAT), chemical alert placards and confined space procedures. This course has been approved for online delivery.

Recommended Preparation: Successful completion of ENGL105 or equivalent multiple measures placement.

Transfers to CSU only
17 Hours Lecture, 34 Outside Class Hours, 51 Total Student Learning Hours
Scheduled: Spring

II. Coding Information

Repeatability: Not Repeatable, Take 1 Time
Grading Option: Graded or Pass/No Pass
Credit Type: Credit - Degree Applicable
TOP Code: 094610

III. Course Objectives

A. Course Student Learning Outcomes

Upon completion of this course the student will be able to:

1. Describe hazard materials awareness and handling.
2. Describe confined space and lockout/tag out procedures.
3. Explain chemical alert systems.
4. Explain elements of material safety data sheets.

B. Course Objectives

Upon completion of this course the student will be able to:

1. Identify and define standard elements of facility safety and training programs.
2. Define and implement various safety tagging procedure, including confined spaces.
3. Demonstrate understanding of ~~M~~SDS, identify HAZ/MAT and specify appropriate Chemical Alert placard designations and symbols.

IV. Course Content

A. Safety and Training Programs
    1. Organizational Structures
    2. Elements of successful safety program
    3. Topics for facility surveys
B. Safety Tagging Procedures

1. Types of tags and locks
2. The "Tagging Authority", the paper and the procedure
3. Tagging boundaries recognition and evaluation
4. Confined space recognition and evaluation

C. Facility Environment

1. ~~M~~SDS access and interruption
2. HAZMAT: Identification of materials
3. Safety equipment
4. Paperwork and procedural requirements

V. Assignments

A. Appropriate Readings

Safety pamphlets, ~~Material~~ Safety Data Sheets (~~M~~SDS), OSHA guidelines and industry reprints.

B. Writing Assignments

Preparation of tagging clearances, ~~M~~SDS evaluations and confined space determinations

C. Expected Outside Assignments

Assignments may include assigned readings, writing/computations assignments, and facility safety surveys.

D. Specific Assignments that Demonstrate Critical Thinking

Identify and analyze specific safety, tagging, ~~M~~SDS and confined space case studies and prepare a comprehensive solution for each scenario.

VI. Methods of Evaluation

Tradition Classroom Evaluation

Multiple measures of student performance, including in-class work, out-of-class work, quizzes and a comprehensive final examination.

Online Evaluation

Participation in forum based discussions. Online exercises/assignments contained on website. Web based video vignettes with discussion paper, email communications, postings to forums, online lecture notes and web links will compromise the method of instruction.

VII. Methods of Delivery

Check those delivery methods for which, this course has been separately approved by the Curriculum/Academic Standards Committee.

☒ **Traditional Classroom Delivery** ☐ Correspondence Delivery

☐ Hybrid Delivery ☒ Online Delivery

Traditional Classroom Delivery

Classroom instruction that may include lecture, demonstrations, discussion and a field trip.

Online Delivery

Participation in forum based discussions. Online exercises/assignments contained on website. Web based video vignettes with discussion paper, email

communications, postings to forums, online lecture notes and web links will compromise the method of instruction.

VIII. Representative Texts and Supplies

Industry technical data, reprints and safety data sheets.

IX. Discipline/s Assignment

Industrial Technology, Welding

X. Course Status

Current Status: Active
Original Approval Date: 4/17/1990
Revised By: Kory Konkol
Curriculum/Academic Standards Committee Revision Date: 02/15/2022