Barstow College Course Outline - Course - SLO, Objectives, Methods of Instruction

ELCT 70A

Dept & Nbr: ELCT 70A **Abbrv Title:** Electrical Sfty & Hand Bending

Full Title:
Electrical Sfty & Hand Bending

Title 5 Category:
Associate Degree Applicable

Certificate:
Not Applicable

Units
Max: 1.00
Min: 1.00

Course Hours Per Week
Lecture 1
Lab 0

Number of Weeks
18.0

Course Hours Total
Lecture 18.00
Lab 0

Methods of Delivery
Distance Education - Fully Online
Distance Education - Hybrid
Live Instruction

Selected Topic
No

Grading
Graded Option Only (ABCDEF)

Repeat Code

Non Repeatable/Non Activity Course (May be repeated two times with a grade of less than "P" or "C")

Basic Skills

Course is not a basic skills course.

Prerequisites

Corequisites

Recommended Preparation

Catalog Description

Safety rules as applied to handling and working with electrical systems and circuits. Precautions to take for various electrical hazards found on the jobsite and required OSHA mandated lock out / tag out procedure. Methods and procedures used in cutting, bending, and reaming conduit.

Course Content

I. Electrical Hazards
II. OSHA Standards
III. Ladders and Scaffolds
IV. General Construction Safety Topics
V. Hazardous Materials
VI. Fall Protection
VII. Introduction to Hand Bending
VIII. Off Set Bends
IX. Cutting and Reaming Conduit

Methods of Instruction

1. Instructor lecture and class discussion
   (Satisfies objectives 1, 2, 3, 4, 5, 6, 9)
2. For Distance Education Instructor guided discussion board and publisher materials including PowerPoint
   (Satisfies objectives 1, 2, 3, 4, 5, 6, 7, 9)
3. Homework, both reading and writing, assigned by instructor.
   (Satisfies objectives 1, 2, 4, 5, 6, 7, 8, 9)

Course Objectives

A. Define Course Objectives

1. Describe safe working procedures in a construction environment.
2. Explain the purpose of OSHA and how it promotes safety on the job.
3. Identify electrical hazards and how to avoid or minimize them in the workplace.
4. Explain safety issues concerning lock out/tag out procedures, personal protection using assured grounding and isolation programs, confined space entry, respiratory protection, and fall protection.
5. Identify the methods of hand bending conduit.
6. Identify the various methods used to install conduit.
7. Demonstrate the use of math formulas to determine conduit bends.
8. Explain the process to make 90 degree bends, back-to-back bends, offsets, kicks, and saddle bends using a hand bender.
9. Explain the process of cutting, reaming, and threading conduit

B. Critical Thinking Tasks/Assignments

Critical thinking assignments include(but are not limited to) the following:

Substantial Writing Assignments Including:
Written Homework
Reading Reports

Computational or Non-Computational Problem Solving Demonstrations Including:
Exam(s)
Quizzes
Homework Problems

Skill Demonstration Including

Objective Examinations Including

C. Methods of Evaluation

Substantial Writing Assignments	Written Homework Reading Reports
Computational or Non-Computational Problem Solving Demonstrations	Exam(s) Quizzes Homework Problems
Skill Demonstration	None
Objective Examinations	Industry standardized exams required
Other	Attendance/Participation
Additional assessment information (optional).	

Basis for Grades

Writing Assignments	20.0%
Problem-Solving	20.0%
Objective Examinations	40.0%
Attendance	20.0%

Required Reading, Writing and Other Outside of Class Assignments

Required Reading:

Required Writing:

Other Out of Class Assignments:

Texts/Materials

Textbooks

1. -. *NCCER, Electrical Level One Trainee Guide 2008 NEC*, ed. Prentice-Hall, 2008, ISBN: 9780136044598.

Manuals

You have no manuals defined.

Periodicals

You have no periodicals defined.

Software

You have no software defined.

Other

You have no other defined.

Student Learning Outcomes

1. The student will be able to explain the purpose of OSHA and how it promotes safety on the job.
    - Core Competency: Communication and Personal/Professional Development
    - Assessment Methods: Online exam & discussion
    - Rubric:
2. The student will be able to explain the importance of "lock out / tag out" procedures and how they relate to safety in the work place.
    - Core Competency: Communication and Personal/Professional Development
    - Assessment Methods: Online exam & discussion
    - Rubric:
3. The student will be able to recognize the methods and procedures of bending conduit
    - Core Competency: Personal/Professional Development
    - Assessment Methods: Online exam & discussion
    - Rubric:

Curriculum Committee Approval Date: 10/20/2006 **Last Outline Revision Date:** 01/01/2013