BI 0806 - INTRODUCTION TO BUILDING TRADES AND TOOLS

Catalog Description

Formerly known as CET 806
Prerequisite: Completion of BI 805 with grade of "Pass"
Hours: 48 (27 lecture, 21 laboratory)
Description: Provides an overview of the local/regional building trade industry. Introduces students to the proper and safe operation of hand and power tools used in construction. Covers the fundamentals of construction math, measurements and blueprints. Emphasizes the employability skills such as time management, communication and proper attire for success in the construction industry. (pass/no pass grading) (noncredit)

Course Student Learning Outcomes

- CSLO #1: Demonstrate the safe and proper use of hand and power tools used in construction.
- CSLO #2: Interpret, measure, estimate and calculate math problems used in construction.
- CSLO #3: Read basic blueprints.

Effective Term

Fall 2020

Course Type

Noncredit

Contact Hours

48

Outside of Class Hours

54

Total Student Learning Hours

102

Course Objectives

Lecture:
1. Explain scope of building trades and industry in region.
2. Identify types and categories of hand and power tools used in construction.
3. Hand tool safety.
4. Explain the importance of measuring tools and their use in calculating building layout and estimation of materials used for construction.
5. Explain how to read a typical set of blueprints, and to differentiate between various pages and types of blueprints used for construction projects.
6. Explain how to correctly measure various layouts, and to accurately resolve a range of construction math problems
7. Outline the importance of time management and communication for working in construction.
8. Explain the proper attire and Safety for working in construction.
9. Outline job search skills.
Laboratory:
1. Demonstrate how to use hand and power tools.

General Education Information

- Approved College Associate Degree GE Applicability
- CSU GE Applicability (Recommended-requires CSU approval)
- Cal-GETC Applicability (Recommended - Requires External Approval)
- IGETC Applicability (Recommended-requires CSU/UC approval)

Articulation Information

- Not Transferable

Methods of Evaluation

- Problem Solving Examinations
  - Example: Students will be tested on reading and lecture material. Question Example: Create the Bill of Materials for a doghouse. Points will be assigned to each question and converted to a letter grade.
- Skill Demonstrations
  - Example: Students will demonstrate the correct and safe techniques when using specific power tools.

Repeatable

Yes

Methods of Instruction

- Laboratory
- Lecture/Discussion

Lab:

1. Instructor will lecture and demonstrate how to correctly measure various blueprint layouts. The student will be given an opportunity to clarify any questions in an instructor-guided discussion.

Lecture:

1. Lab techniques will be presented in a "describe / show / review" methodology. Students will complete a safety test before using equipment. Instructor will work with students until they can successfully complete the test with 100% success rate.

Typical Out of Class Assignments Reading Assignments

1. Students will read the chapter in the textbook relating to hand tool safety and outline the safety steps for working with a specific tool, i.e. Hammer. 2. Students will read a chapter in the textbook on material needs. Students will then create a list of materials needed for instructor provided building.

Writing, Problem Solving or Performance

1. Given a set of blueprints, students will calculate the square footage of the building. 2. In a report, students will outline power tool safety procedures.

Other (Term projects, research papers, portfolios, etc.)

Required Materials

Other materials and-or supplies required of students that contribute to the cost of the course.

Course Materials provided by the Instructor