

Course Outline

COURSE: CARP 214 **DIVISION:** 50 **ALSO LISTED AS:**

TERM EFFECTIVE: Fall 2016 **Inactive Course**

SHORT TITLE: COMMERCIAL STEEL FRAMING

LONG TITLE: Commercial Steel Framing

| <u>Units</u> | <u>Number of Weeks</u> | <u>Type</u> | <u>Contact Hours/Week</u> | <u>Total Contact Hours</u> |
|--------------|------------------------|-------------|---------------------------|----------------------------|
| 1 | 1 | Lecture: | 6 | 6 |
| | | Lab: | 30 | 30 |
| | | Other: | 0 | 0 |
| | | Total: | 36 | 36 |

COURSE DESCRIPTION:

This course is a comprehensive study of materials, work processes and the proper use of tools necessary to install layout and material application for metal framing, drywall, suspended ceilings, metal frames and doors, door hardware, and access floors.

PREREQUISITES:

COREQUISITES:

CREDIT STATUS: C - Credit - Degree Non Applicable

GRADING MODES

L - Standard Letter Grade

REPEATABILITY: N - Course may not be repeated

SCHEDULE TYPES:

02 - Lecture and/or discussion

03 - Lecture/Laboratory

04 - Laboratory/Studio/Activity

STUDENT LEARNING OUTCOMES:

1. The student will demonstrate the ability to identify, layout and install materials for straight and radius metal framing

Measure: Class Performance, Quizzes, Written Exams

PLO: 2

ILO: 1, 2, 3, 7

GE-LO:

Year assessed or anticipated year of assessment: 2012-13

2. The student will be able to demonstrate the ability install, layout, and construct access floor system.

Measure: Class Performance, Quizzes

PLO: 2

ILO: 1, 2, 3, 7

GE-LO:

Year assessed or anticipated year of assessment: 2012-13

PROGRAM LEARNING OUTCOMES:

1. Demonstrate journey level skills, including those skills necessary to build all concrete infrastructures that comprise the California transportation system.
2. Locate on the blueprints and in the specifications, the information needed to construct various types of structures and assemble its various components.
3. Perform horizontal layout and vertical layout of wood framed wall components. Install interior and exterior trims and moldings. Construct various types of roofs and stairs.

CONTENT, STUDENT PERFORMANCE OBJECTIVES, OUT-OF-CLASS ASSIGNMENTS

Inactive Course: 11/28/2016

Out-of class assignments: For each topic, the student will read chapters and do homework assignments at the end of those chapters.

2 lec/10 lab

- A. Steel framing
 1. Components
 - A. Studs and joist
 - B. Runner
 - C. Furring
 - D. Fasteners
 2. Wall framing procedures
 3. Ceiling framing procedures
 4. Braced and unbraced soffits
- B. Drywall
 1. Gypsum board types, uses, sizes, and standards
 2. Gypsum board and heat transmission
 3. Uniform Building Code and gypsum board application
 4. General recommendations for gypsum board application
 5. Corner beads and trim
 6. Construction methods for sound isolation

Application to geometric and radius walls

SLO: The student will identify, layout, and install materials used in straight and radius walls and ceilings. The student will demonstrate the ability to apply gypsum wallboard to straight, geometric, and radius metal framed structures.

Assignments: Read the chapters covered in the lecture and do the homework exercises at the end of the chapters. Answer the study guide questions on the assigned subject.

Identify, layout, and install materials used in straight and radius walls and ceilings.

Demonstrate the ability to apply gypsum wallboard to straight, geometric, and radius metal framed structures.

2 lec/10 lab

- C. Suspended exposed grid ceilings
 - 1. Hand and power tools
 - 2. Laser levels
 - 1. Set up procedures
 - 2. Use
 - 3. Care and maintenance
 - 3. Materials
 - 4. Installation procedure
 - 1. Bench marks for ceiling height
 - 2. Grid layout
 - 3. Wire hangers, main runners, and cross runners
 - 4. Seismic bracing
 - 5. Ceiling board
 - 6. Uniform Building Code requirements
- D. Metal Frames and doors
 - 1. General
 - a. Storage
 - b. Grouting and back painting
 - c. Silencers
 - d. Tolerances
 - 2. Specific steel frames
 - a. Masonry frames
 - b. One-piece welded frames for steel framed walls
 - c. One-piece welded frames for wood framed walls
 - d. Knock down steel frames
 - e. Installation procedures
 - 3. Steel doors
 - a. Storage
 - b. Installation procedures

SLO: The student will identify, layout, and install the materials used to construct suspended exposed grid ceilings. The student will assemble and install metal doors and frames.

Assignments: Read the chapters covered in the lecture and do the homework exercises at the end of the chapters. Answer the study guide questions on the assigned subject.

Identify, layout, and install the materials used to construct suspended exposed grid ceilings. Assemble and install metal doors and frames.

b.

2 lec/ 10 lab

- E. Door hardware
 - 1. Codes
 - 2. Door hand
 - 3. Closers
 - a. Purpose
 - b. Construction

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- c. Controls
- d. Surface mounted door closers
- e. ADA requirements
- f. Installation procedures
- 4. Exit devices
 - a. Purpose
 - b. Codes
 - c. Exit device classification
 - d. Exit device styles
 - e. Components
 - f. Rim device
 - g. Vertical rod
 - h. Mortise
 - i. Concealed vertical rod
 - j. Fasteners
 - k. Installation procedures
- F. Access floor systems
 - 1. Applications
 - 2. Components
 - 3. Tools
 - 4. Installation procedures

SLO: The student will install a door closer and an exit device. The student will identify, layout, and install the materials used to construct an access floor system

Assignments: Read the chapters covered in the lecture and do the homework exercises at the end of the chapters. Answer the study guide questions on the assigned subject.

Install a door closer and an exit device. Identify, layout, and install the materials used to construct an access floor system.

2 hours

Final exam

METHODS OF INSTRUCTION:

- A. Lecture and discussion
- B. Visual aids
- C. Demonstrations
- D. Group hands-on exercise
- E. Individual hands-on exercise
- F. One-on-one hands-on instruction

METHODS OF EVALUATION:

The types of writing assignments required:

Written homework

Reading reports

Lab reports

Essay exams

The problem-solving assignments required:

Homework problems

Field work

Lab reports

Quizzes

Exams

The types of skill demonstrations required:

Class performance

Field work

Performance exams

The types of objective examinations used in the course:

Multiple choice

True/false

Matching items

Completion

Other category:

None

The basis for assigning students grades in the course:

Writing assignments: 10% - 30%

Problem-solving demonstrations: 10% - 40%

Skill demonstrations: 20% - 80%

Objective examinations: 10% - 30%

Other methods of evaluation: 0% - 0%

REPRESENTATIVE TEXTBOOKS:

Required:

Barclay, CTCNC. Construction Safety Orders 1 & 2, Interior Systems. Thomas West/CTCNC, 2013. Or other appropriate college level text.

Reading level of text, Grade: 10 Verified by: publisher/dvt

ARTICULATION and CERTIFICATE INFORMATION

Associate Degree:

CSU GE:

IGETC:

CSU TRANSFER:

Not Transferable

UC TRANSFER:

Not Transferable

SUPPLEMENTAL DATA:

Basic Skills: N

Classification: Y

Noncredit Category: Y

Cooperative Education:

Program Status: 1 Program Applicable

Special Class Status: N

CAN:

CAN Sequence:

CSU Crosswalk Course Department:

CSU Crosswalk Course Number:

Prior to College Level: Y

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Non Credit Enhanced Funding: N
Funding Agency Code: Y
In-Service: N
Occupational Course: A
Maximum Hours:
Minimum Hours:
Course Control Number: CCC000500347
Sports/Physical Education Course: N
Taxonomy of Program: 095210