Course Outline

COURSE: CARP 206  DIVISION: 50  ALSO LISTED AS:  

TERM EFFECTIVE: Fall 2016  Inactive Course  

SHORT TITLE: STRUCTURAL FRAMING  

LONG TITLE: Structural Framing  

<table>
<thead>
<tr>
<th>Units</th>
<th>Number of Weeks</th>
<th>Type</th>
<th>Contact Hours/Week</th>
<th>Total Contact Hours</th>
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<td>1</td>
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<td>Lecture:</td>
<td>6</td>
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<tr>
<td></td>
<td></td>
<td>Lab:</td>
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<td>Other:</td>
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<td>Total:</td>
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COURSE DESCRIPTION:  
This course covers basic framing systems and layout of walls, ceilings and stairwells.  

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 safely plan, assemble, erect, fasten, plumb, and brace wall components in the proper sequence.  
Measure: Written Exams, Quizzes, Class Performance  
PLO: 3  
ILO: 1, 2, 3, 7  

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2. The student will layout and install ceiling joist, backing, and blocking.

Measure: Written Exams, Class Performance

PLO: 3
ILO: 1, 2, 3, 7

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.


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 hours

A. Framing systems
   1. Western platform framing
      a. Components
      b. Advantages/disadvantages
   2. Balloon framing
      a. Components
      b. Advantages/disadvantages
   3. Post and beam framing
      a. Components
      b. Advantages/disadvantages

SLO: The student will contrast and evaluate the different ways of framing.

B. Building layout
   1. Floor plans
   2. Exterior wall, interior wall, door, and window locations
   3. Wall erection sequence

SLO: The student will examine and perform building layout.

C. Horizontal wall layout
   1. Locations and dimensions
   2. Layout symbols
   3. Components
   4. Determine rough openings
      a. Single doors
      b. Pocket doors
      c. Bypass doors
d. Aluminum windows
e. Proprietary windows
5. Stud locations
a. Modular sheathing
b. Seismic ties
6. Component lengths

SLO: The student will appraise and construct wall layout.

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 and assemble all of the components necessary for western platform framing. Identify and utilize the various species and grades of construction lumber used in framing. Perform building layout.

2 lec/10 lab hours
D. Vertical layout
1. Components
2. Information sources
3. Component lengths
4. Story poles
5. Cutting lists

SLO: The student will appraise and construct the vertical layout.

mid-term exam
E. Wall framing
Assembly order
Building code provisions
Wall sheathing
Erection of wall frames

Plumb and alignment procedures
SLO: The student will safely plan, assemble, erect, fasten, plumb, and brace wall components in the proper sequence.

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.

Perform horizontal layout and vertical layout of wall components. Determine the rough openings for doors and windows. Safely plan, assemble, erect, fasten, plumb, and brace wall components in the proper sequence.

2 lec/10 lab hours
F. Resistance to lateral forces and uplift forces
1. Wind and seismic loads
2. Shear walls
a. Frame
b. Diaphragm
c. Anchor bolts
d. Hold downs
3. Continuous load path
a. Foundation to wall tie
b. Floor to floor tie
c. Roof to wall tie

SLO: The student will identify and assemble a shear wall.

G. Ceiling joist
1. Joist layout
a. Gable roof

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b. Hip roof

c. Joist installation

SLO: The student will layout and install ceiling joist, backing, and blocking.

H. Lumber grade marks

SLO: The student will analyze, compare, and choose different lumber grades.

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 and assemble a shear wall. Identify and assemble a continuous load path. Layout and install ceiling joist, backing, and blocking.

2.0 Hours

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: 5% - 30%
Problem-solving demonstrations: 10% - 40%
Skill demonstrations: 40% - 80%
Objective examinations: 5% - 30%
Other methods of evaluation: 0% - 0%

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REPRESENTATIVE TEXTBOOKS:
Required:
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
Non Credit Enhanced Funding: N
Funding Agency Code: Y
In-Service: N
Occupational Course: A
Maximum Hours:
Minimum Hours:
Course Control Number: CCC000500339
Sports/Physical Education Course: N
Taxonomy of Program: 095210

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