Course Outline

COURSE: CARP 218 DIVISION: 50 ALSO LISTED AS:

TERM EFFECTIVE: Fall 2016 Inactive Course

SHORT TITLE: COMMERCIAL CONCRETE

LONG TITLE: Commercial Concrete

<table>
<thead>
<tr>
<th>Units</th>
<th>Number of Weeks</th>
<th>Type</th>
<th>Contact Hours/Week</th>
<th>Total Contact Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>Lecture: 11</td>
<td>11</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Lab: 25</td>
<td>25</td>
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<tr>
<td></td>
<td></td>
<td>Other: 0</td>
<td>0</td>
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<td></td>
<td>Total: 36</td>
<td>36</td>
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COURSE DESCRIPTION:

This course is designed to make apprentices familiar with the concepts and practices of commercial concrete construction. The apprentice will be knowledgeable about the layout and construction of bolt patterns, concrete columns and gang forms. In addition, the student will be familiar with the types and methods used to safely build, shore and place column caps and concrete decks.

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. Students will read a set of commercial prints and lay out job grid lines.

Measure: Quizzes, Written Exams, Class Performance

12/5/2016 1
2. Students will construct a bolt pattern and install in proper location and elevation.
Measure: Quizzes, Written Exams, Class Performance

3. Students will build, set and brace a round fiber form column at the correct location.
Measure: Quizzes, Written Exams, Class Performance

4. Students will build, set and brace a square wood column at the correct location.
Measure: Quizzes, Written Exams, Class Performance

5. Students will assemble, set and brace a wall using composite metal/plywood panels.
Measure: Quizzes, Written Exams, Class Performance

6. Students will erect, line and brace a section of Alumawall with taper ties and strongbacks.
Measure: Quizzes, Written Exams, Class Performance

7. Students will correctly identify the components of a traditional wood-shore deck system, including Ellis shores, stringers, joists and deck plywood
Measure: Quizzes, Written Exams, Class Performance

8. Students will assemble a steel post shoring system and set it to the correct elevation
Measure: Quizzes, Written Exams, Class Performance

9. Students will identify the safety hazards of silica and the corrective measures to mitigate the danger.
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
1 Hours
Content:
Introduction Lecture
Student Performance Objectives (SPO): Understanding the content of the course progression
Out-of-Class Assignments: Read chapter assignments
1 Hours
Content:
Chapter 1 Bolt Patterns (Lecture)
Student Performance Objectives (SPO): Prepare for MLP in Lab
Out-of-Class Assignments: None
3 Hours
Content:
Layout and build bolt templates using the given plan (Lab)
Student Performance Objectives (SPO): Demonstrate ability to perform lesson
Out-of-Class Assignments: None
1 Hours
Content:
Chapter 2 Columns (Lecture)
Student Performance Objectives (SPO): Understand chapter material
Out-of-Class Assignments: Read chapter assignments
5 Hours
Content:
Lay out, build and brace round and square columns (Lab)
Student Performance Objectives (SPO): Demonstrate ability to perform assignment
Out-of-Class Assignments: None
2 Hours
Content:

10. Students will correctly calculate the amount of concrete needed for various forms.

Measure: Quizzes, Written Exams, Class Performance

PLO: 1
ILO: 1,2,3,7
GE-LO: N/A
Anticipated Year of Assessment: Fall 2016
Chapter 3 Gang Forms (Lecture)
Student Performance Objectives (SPO): Understand Chapter material and review lab assignment
Out-of-Class Assignments: None
1 Hours
Content:
Silica Awareness (Lecture)
Student Performance Objectives (SPO): Understand the hazards of working with silica
Out-of-Class Assignments: None
6 Hours
Content:
Assemble the Symons forms and lay out and construct the Aluma Wall forms
Student Performance Objectives (SPO): Demonstrate ability to perform the assignment
Out-of-Class Assignments: None
2 Hours
Content:
Chapter 4 Traditional Decking (Lecture)
Student Performance Objectives (SPO): Understand the terminology and process of the chapter and review
the MLP for the project
Out-of-Class Assignments: None
5 Hours
Content:
Traditional Deck (Lab)
Student Performance Objectives (SPO): Lay out, build, joist, deck and brace wooden shore project
demonstrate proficiency in the work processes defined in the MLP
Out-of-Class Assignments: None
1 Hours
Content:
Chapter 5 Metal Shoring (Lecture)
Student Performance Objectives (SPO): Understand the terminology and metal shoring process
Out-of-Class Assignments: None
1 Hours
Content:
Chapter 6 Floor Forms (Lecture)
Student Performance Objectives (SPO): Understand the terminology and floor form work process and
related MLP
Out-of-Class Assignments: None
4 Hours
Content:
Assembly of the Pro-Shore metal deck (Lab)
Student Performance Objectives (SPO): Demonstrate proficiency in the work processes of the MLP
Out-of-Class Assignments: None
1 Hours
Content:
Chapter 7 Pre-stressed concrete (Lecture)
Student Performance Objectives (SPO): Understand the terminology and work processes for Pre-stressed
concrete
2 Hours Final
METHODS OF INSTRUCTION:
Lectures, demonstrations, multimedia presentations, discussions, and hands-on lab activities.

METHODS OF EVALUATION:
Category 1 - The types of writing assignments required:
Percent range of total grade: 20 % to 30 %

Written Homework
Reading Reports
Other: MLP shop based curriculum performance based
Course primarily involves skill demonstration or problem solving

Category 2 - The problem-solving assignments required:
Percent range of total grade: 30 % to 40 %

Homework Problems
Quizzes
Exams

Category 3 - The types of skill demonstrations required:
Percent range of total grade: 40 % to 50 %

Class Performance/s
Field Work

Category 4 - The types of objective examinations used in the course:
Percent range of total grade: 5 % to 10 %

Multiple Choice
True/False

REPRESENTATIVE TEXTBOOKS:
Required:
CITF. Commercial Concrete.
1) Construction Safety Orders, CAL OSHA current edition
2) CTCNC COMMERCIAL CONCRETE, Carpenters International Training Fund, Las Vegas, NV. (2014)
Reading level of text, Grade: 10 Verified by: Director of Training

12/5/2016
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: 1
Minimum Hours: 1
Course Control Number: CCC000558726
Sports/Physical Education Course: N
Taxonomy of Program: 095210