

Course Outline

COURSE: CARP 209 **DIVISION:** 50 **ALSO LISTED AS:**

TERM EFFECTIVE: Fall 2016 **Inactive Course**

SHORT TITLE: BLUEPRINT READING ADVANCED

LONG TITLE: Blueprint Reading - Advanced

<u>Units</u>	<u>Number of Weeks</u>	<u>Type</u>	<u>Contact Hours/Week</u>	<u>Total Contact Hours</u>
2	1	Lecture:	30	30
		Lab:	6	6
		Other:	0	0
		Total:	36	36

COURSE DESCRIPTION:

This course is an introduction to commercial and industrial blueprints. Topics include conventions, lines, symbols, measurements, and specifications used for commercial and industrial construction. Complete construction material take-off calculations commonly used on the job.

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. Describe the purpose and structure of construction specifications and locate specific items.

Measure: Quizzes, Written Exams, Multiple Choice

PLO: 2

ILO: 2, 3, 7

GE-LO:

Year assessed or anticipated year of assessment: 2012-13

2. Locate, on the blueprints and in the specifications, the information needed to construct the structure and assemble its various components.

Measure: Quizzes, Written Exams, Multiple Choice

PLO: 2

ILO: 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.

10 lec/2 lab hours

- A. Introduction to commercial and industrial blueprints
 1. Uniform Building Code requirements for blueprints
 2. How prints are drawn and organized
 3. Architectural plans
 4. Structural plans
 5. Plumbing plans
 6. Mechanical plans
 7. Electrical plans
 8. Drawing conventions
- B. Specifications
 1. Purpose
 2. Relationship between drawings and specifications
 3. General provisions
 4. Technical specifications
- C. Codes, regulations, and industry standards
 1. Local zoning
 2. The Uniform Building Code
 3. Energy regulations
 4. Industry standards

SLO: The student will describe the purpose and structure of construction blueprints and specifications and locate specific items. The student will describe the purpose of codes, regulations, and industry standards and their application in the construction industry.

12/5/2016

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.

Describe the purpose and structure of commercial and industrial blueprints. Describe the purpose and structure of construction specifications and locate specific items. Describe the purpose of codes, regulations, and industry standards and their application in the construction industry.

10 lec/2 lab hours

- D. Site plans
 - 1. Engineering measurement
 - 2. Scale
 - 3. Index, symbols, and abbreviations
 - 4. Vicinity map and legal description
 - 5. Horizontal and vertical controls
 - 6. Utilities and site improvements
- E. Foundation plans
 - 1. Soil conditions and the weight of the structure
 - 2. Foundation systems
 - 3. Job specific foundation plan and specifications
- F. Specialized plans
- G. Plumbing plans
- H. Electrical plans
- I. Mechanical plans

SLO: The student will describe the purpose and structures of site, foundation, plumbing, electrical, mechanical and specialized plans and locate specific items. The students will identify mechanical, electrical, plumbing, masonry, metal, and other symbols for construction materials.

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.

Describe the purpose and structure of commercial and industrial plans. Describe the meaning mechanical, electrical, plumbing, masonry, metal, and other symbols from plans.

10 lec/2 lab hours

- J. Wood framing
- K. Concrete and masonry construction
- L. Metal construction
- M. Exterior and interior finish
- N. Doors and windows
- O. Thermal and moisture protection
- P. Quantity take-off

SLO: The student will locate, on the blueprints and in the specifications, the information needed to construct the structure and assemble its various components. The student will do basic material take-off calculations.

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.

Locate, on the blueprints and in the specifications, the information needed to construct the structure and assemble its various components. Do basic material take-off calculations. Estimate the cubic yards of concrete needed for the slab-on-grade concrete floor.

2 hours

Final exam

METHODS OF INSTRUCTION:

- A. Lecture and discussion
- B. Visual aids

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- 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% - 40%

Problem-solving demonstrations: 10% - 40%

Skill demonstrations: 20% - 50%

Objective examinations: 10% - 30%

REPRESENTATIVE TEXTBOOKS:

Required:

Leonard A. Koel, CTCNC. 6th edition, Blueprint Reading Commercial and Industrial. American Technical Publishers, 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

Non Credit Enhanced Funding: N

Funding Agency Code: Y

In-Service: N

Occupational Course: A

Maximum Hours:

Minimum Hours:

Course Control Number: CCC000500342

Sports/Physical Education Course: N

Taxonomy of Program: 095210