

# PUB 164: PLAN READING AND COST ESTIMATING

## Citrus College Course Outline of Record

Heading	Value
Effective Term:	Fall 2021
Credits:	3
Total Contact Hours:	54
Lecture Hours :	54
Lab Hours:	0
Hours Arranged:	0
Outside of Class Hours:	108
Strongly Recommended:	ENGL 101.
Transferable to CSU:	No
Transferable to UC:	No
Grading Method:	Standard Letter, Pass/No Pass

## Catalog Course Description

A course provides students with the foundational knowledge to read and interpret civil plans related to Public Works construction within the public right-of-way. Course includes performing quantity take-offs used in estimating time, material, labor, and equipment needed for public works projects. 54 lecture hours.

## Course Objectives

- interpret highway plans, storm drain plans and traffic signal plans
- identify the best materials for a given project
- estimate quantities of materials needed for a public works project
- calculate the time, material, labor and equipment needed for public works projects
- explain the concept of advertising for construction bids
- develop a "project bid" based on plans for a public works project

## Major Course Content

1. Introduction
2. Importance of accurate plan interpretation
3. Importance of preparing accurate estimates
4. Estimating Mathematics
5. Overview of BIM
6. Plan Interpretation
7. Street Improvement Plans
8. Surface Improvements
9. Subsurface Improvements & Utilities
10. Street Lighting & Traffic signal plans
11. Performing Quantity Takeoffs
12. Estimating Project Quantities
13. Contract Documents
14. Contract Procurement
15. Notice to bidders
16. Bid opening and Contract Award

17. Estimating Manpower, Material and Equipment Hours
18. Ethics in Construction Estimating

## Suggested Reading Other Than Required Textbook

Instructor assigned articles related to Public Works

## Examples of Required Writing Assignments

Develop a basic project bid

## Examples of Outside Assignments

Complete weekly homework assignments

## Instruction Type(s)

Lecture, Online Education Lecture