

CM 145: CONSTRUCTION INSPECTION AND MATERIALS TESTING

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
Prerequisite:	CM 110.
Transferable to CSU:	Yes
Transferable to UC:	No
Grading Method:	Standard Letter

Catalog Course Description

This course provides a comprehensive overview of construction inspection and materials testing processes relevant to the building and general engineering construction, including surface and subsurface construction improvements; consideration will be given to examining the various types of inspections, code versus contracts, inspection records, duties, responsibilities, and compliance and resolution, and interpersonal communication skills. Emphasis will be on exploring the various career opportunities. 54 lecture hours.

Course Objectives

- Identify the types and disciplines of construction inspections.
- Differentiate between Code and Contract quality requirements.
- Given specific contract documents assigned in-class, demonstrate appropriate interpretation of and clarity of intent of contract quality requirements.
- Through testing and other assessments, demonstrate understanding of professional interpersonal relations.
- Demonstrate, through oral presentations, class participation and testing, thorough knowledge of the inspector's duties and responsibilities.
- Given a specific scope of work, demonstrate proficiency in writing accurate, descriptive and complete inspection daily reports on actual report templates provide by instructor to meet inspection standards of practice
- Using excerpts from construction documents and drawings, demonstrate basic skills of estimating and tracking quantities materials, labor and equipment used to justify progress payments to contractors.
- Through class participation and assigned papers, discuss ethics in the construction inspection profession.

Major Course Content

1. Interpersonal Skills for Inspectors
2. Governing Documents for Inspection
3. The Integrated Team Environment
4. Analysis of Quality Standards
5. Inspection Produced Documents
6. Review of Precedence of Contract Documents
7. Justification for Construction Inspections
8. Inspection Applications
9. Contract Administration Inspections
10. Code-Mandated Special Inspections
11. Building - Mechanical – Electrical - Plumbing
12. Civil Improvements and Utilities
13. Substantial Completions and Final Inspections
14. Daily Inspection Reports
15. Compliance and Resolution Process
16. Ethics in Construction Inspection

Suggested Reading Other Than Required Textbook

Selected reading assignments to be provided by instructor covering Building codes, construction standards and specifications.

Examples of Required Writing Assignments

Using templates provided by instructor, prepare sample documents typically produced by the inspector such as Job Memorandums and Non-Conformance reports based on specific topics provided by instructor.

Examples of Outside Assignments

Participate in Team Project assignments and preparation for oral presentation on instructor-assigned topics on construction project inspections

Instruction Type(s)

Lecture, Online Education Lecture