CEST 64 Course Outline as of Spring 2010

CATALOG INFORMATION

Dept and Nbr: CEST 64 Title: PUBLIC WORKS INSPECTION
Full Title: Public Works Inspection & Testing
Last Reviewed: 10/24/2022

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	3.00	Lecture Scheduled	3.00	17.5	Lecture Scheduled	52.50
Minimum	3.00	Lab Scheduled	0	17.5	Lab Scheduled	0
		Contact DHR	0		Contact DHR	0
		Contact Total	3.00		Contact Total	52.50
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 105.00 Total Student Learning Hours: 157.50

Title 5 Category:	AA Degree Applicable
Grading:	Grade Only
Repeatability:	00 - Two Repeats if Grade was D, F, NC, or NP
Also Listed As:	
Formerly:	

Catalog Description:
Instruction of specific inspection and testing techniques used in public works projects. Topics include identifying duties, responsibilities, policies, procedures and methods for inspection and testing performed for cities, counties, and public agencies in California. Contracts, specifications and plans will be discussed. Responsibilities of the contractor, the engineer, the inspector and the owner will be included. Prime consideration will be given to developing inspection records, identifying duties and preparing job diary techniques.

Prerequisites/Corequisites:

Recommended Preparation:

Limits on Enrollment:

Schedule of Classes Information:
Description: Instruction of specific inspection and testing techniques used in public works projects. Topics include identifying duties, responsibilities, policies, procedures and methods for inspection and testing performed for cities, counties, and public agencies in California.

Contracts, specifications and plans will be discussed. Responsibilities of the contractor, the engineer, the inspector and the owner will be included. Prime consideration will be given to developing inspection records, identifying duties and preparing job diary techniques. (Grade Only)
Prerequisites/Corequisites:
Recommended:
Limits on Enrollment:
Transfer Credit: CSU;
Repeatability: Two Repeats if Grade was D, F, NC, or NP

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree:	**Area**	Effective:	Inactive:
CSU GE:	**Transfer Area**	Effective:	Inactive:
IGETC:	**Transfer Area**	Effective:	Inactive:

CSU Transfer:	Transferable	Effective:	Spring 2010	Inactive:	
UC Transfer:		Effective:		Inactive:	

CID:

Certificate/Major Applicable:
Both Certificate and Major Applicable

COURSE CONTENT

Outcomes and Objectives:
1. Define the responsibilities of the Public Works Inspector and describe the inspection policies and procedures
2. Prepare daily job diaries, reports, and other written communication for public works projects
3. Identify and perform the required tests for soils, concrete and aggregates
4. Identify and describe correct safety procedures on a construction site

Topics and Scope:

1. Introduction to Public Works Construction Inspection
   a. Policies and Procedures
   b. Records and reports
   c. Safety
   d. Contracts, plans, specifications and standards
   e. Project Administration
   f. Scheduling and management
2. Construction Materials
   a. Soils and Aggregates
   b. Concrete
   c. Asphalt and paving
   d. Pipes and structures
   e. Construction Standards
   f. Testing

3. Construction Methods and Inspection Procedures
 a. Earthwork and Grading
 b. Underground piping systems
 c. Concrete structures
 d. Street Surface Improvements
 e. Landscaping
 f. Street Lighting and Traffic signal construction
4. Records and reports
 a. Previews
 b. Daily job diary
 c. Project payments
 d. Contract Change orders
 e. Final Inspection
 f. Project Acceptance and Closing Reports
 g. Record drawings
5. Construction Site Safety Procedures

Assignment:

1. Read approximately one chapter of the textbook per week.

2. Weekly homework assignments (10-12).

3. Special projects (1-3).

4. 3 midterm exams and 1 final exam.

5. Writing assignments:
 Daily job diary entries
 Project reports (2-4)
 Letters and memos (3-5)
 Summarization of required readings (8-10)
6. The types of skill demonstrations required:
 Perform appropriate construction materials tests (5-7)
 Perform different types of public works inspections (10-12)
 Prepare diagrams, documents, letters, memos, and reports (5-7)
 Read and interpret contract specifications (3-5)
 Prepare progress pay report (3-5)

Methods of Evaluation/Basis of Grade:

Writing: Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

Daily dairy, project reports, contract specifications	Writing 20 - 30%

Problem Solving: Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Homework problems, project, construction materials testing	Problem solving 20 - 30%

Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

Performance exams, projects, construction materials testing	Skill Demonstrations 30 - 40%

Exams: All forms of formal testing, other than skill performance exams.

Midterms, Final Exam: Essays, Matching items, Completion	Exams 20 - 30%

Other: Includes any assessment tools that do not logically fit into the above categories.

Class Participation	Other Category 0 - 10%

Representative Textbooks and Materials:
Public Works Inspector’s Manual, 6th Edition, Silas B. Birch, Jr., Lynn D. Nicholson, Ron Price, BNi Publications Inc. 2001
Chapters from various State, County and Local Agency Design and Construction Manuals