

**CEST 192 Course Outline as of Fall 2015****CATALOG INFORMATION**

Dept and Nbr: CEST 192 Title: NON TECH SKILLS CIV ENG

Full Title: Non-Technical Skills for the Civil Engineering Technician

Last Reviewed: 2/24/2020

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	1.50	Lecture Scheduled	1.50	17.5	Lecture Scheduled	26.25
Minimum	1.50	Lab Scheduled	0	10	Lab Scheduled	0
		Contact DHR	0		Contact DHR	0
		Contact Total	1.50		Contact Total	26.25
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 52.50

Total Student Learning Hours: 78.75

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: CEST399.92

**Catalog Description:**

An introduction to non-technical skills used by civil engineering and surveying technicians. The course will concentrate on developing: an understanding of one's personal profile; emotional and social intelligences; group collaboration skills; project management skills; individual & group verbal/listening and written communication skills; and job search skills. Students will research technician-level careers in civil engineering and surveying technology.

**Prerequisites/Corequisites:****Recommended Preparation:****Limits on Enrollment:****Schedule of Classes Information:**

Description: An introduction to non-technical skills used by civil engineering and surveying technicians. The course will concentrate on developing: an understanding of one's personal profile; emotional and social intelligences; group collaboration skills; project management skills; individual & group verbal/listening and written communication skills; and job search

skills. Students will research technician-level careers in civil engineering and surveying technology. (Grade Only)

Prerequisites/Corequisites:

Recommended:

Limits on Enrollment:

Transfer Credit:

Repeatability: Two Repeats if Grade was D, F, NC, or NP

## **ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:**

<b>AS Degree:</b>	<b>Area</b>	Effective:	Inactive:
<b>CSU GE:</b>	<b>Transfer Area</b>	Effective:	Inactive:

<b>IGETC:</b>	<b>Transfer Area</b>	Effective:	Inactive:
---------------	----------------------	------------	-----------

<b>CSU Transfer:</b>	Effective:	Inactive:
----------------------	------------	-----------

<b>UC Transfer:</b>	Effective:	Inactive:
---------------------	------------	-----------

**CID:**

**Certificate/Major Applicable:**

Both Certificate and Major Applicable

## **COURSE CONTENT**

### **Student Learning Outcomes:**

At the conclusion of this course, the student should be able to:

1. Demonstrate speaking, writing and listening skills appropriate to the workplace.
2. Describe the process for obtaining employment in the field of civil engineering and surveying technology and develop job application materials, such as a resume.

### **Objectives:**

The student will:

1. Define and describe why non-technical skills are important to technicians and their success in the industry
2. Complete a personal profile examination
3. Identify and define the different types of emotional and social intelligence used by the technician in the workplace
4. Perform a job search and develop a resume

### **Topics and Scope:**

- I. Role of the civil engineering and surveying technician in the workplace
  - A. Job duties
  - B. Relationship to professional
  - C. Legal, moral and ethical issues in civil engineering and surveying practice
  - D. Overview of important non-technical skills for technical workers
- II. Self-assessment: developing a personal profile
  - A. Understanding ways in which a person interacts with the environment
  - B. Identifying employment goals

- C. Identifying strengths and weaknesses
- III. Emotional and Social Intelligence
  - A. Components of social and emotional intelligence
  - B. Negotiating complex social relationships and environments
  - C. Changing social intelligence by altering attitudes and behavior in response to complex social environments
  - D. Monitoring one's own and other people's emotions, to discriminate between different emotions and label them appropriately, and to use emotional information to guide thinking and behavior
  - E. Developing emotional and social intelligence to drive leadership performance
- IV. Working in a group: developing collaboration skills
  - A. Forming a group: Developing a team based on trust, respect, individual responsibility and accountability
  - B. Role of active listening and constructive feedback
  - C. Establish common goal
  - D. Create a timeline
  - E. Outline group objectives and assign tasks such as: facilitator, idea-generator, summarizer, evaluator, mediator, encourager, and recorder
  - F. Resolving conflicts: setting up ground rules
  - G. Leadership skills
  - H. Assessing group work
- V. Project management skills
  - A. Defining the problem
  - B. Setting and prioritizing goals/objectives
  - C. Research: Getting information needed
  - D. Planning: Identifying necessary tasks to meet goals/objectives, making a work plan, scheduling tasks and documenting progress: time/activity logs, diaries and reports
  - E. Developing alternatives: Investigating ideas and possible solutions and evaluation using goals/objectives
  - F. Selecting final option and documenting it
  - G. Issues in time management: Dealing with procrastination, understanding perseverance
- VI. Elements of effective communication
  - A. Information and its emotional content
  - B. Nonverbal communication
  - C. Active listening
  - D. Managing stress
  - E. Emotional awareness
- VII. Creating an oral presentation
  - A. Preparation: Research and development of content
  - B. Organization
  - C. Visual aids and the role of technology
  - D. Delivery: Voice volume, rate, pitch, and quality
  - E. Enthusiasm and connection with audience
  - F. Dealing with audience questions
- VIII. Writing a report
  - A. Understand the purpose
  - B. Preparation: Research and development of content
  - C. Organization: Title, introduction, body, conclusion, recommendations, bibliography and appendices
  - D. Making an outline
  - E. Making a draft
  - F. Final version

- G. Use of analytical thinking
- H. Appropriate language
- I. Graphic elements
- IX. Job search essentials
  - A. Research technician-level careers in civil engineering and surveying technology
  - B. Networking
  - C. Online job search
  - D. Job-related research
  - E. Understanding your strengths and weaknesses
  - F. Applying for a job
  - G. Writing a resume and cover letter
  - H. Interview skills

### Assignment:

1. 20-40 pages of reading per week
2. 4-8 homework assignments, including preparing a resume
3. 0 -1 special project
4. 1 personal profile examination
5. 1-2 quizzes
6. Final exam

### 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.

Homework assignments, including preparing a resume
--

Writing 30 - 60%
---------------------

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

Special project
-----------------

Problem solving 0 - 15%
----------------------------

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

Personal profile evaluation
-----------------------------

Skill Demonstrations 10 - 20%
----------------------------------

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

Objective quizz/es and final examination (multiple choice, true false, matching, completion, etc)
---

Exams 10 - 20%
-------------------

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

Participation
---------------

Other Category 10 - 20%
----------------------------

**Representative Textbooks and Materials:**

Communication Skills: The Ultimate Guide for Improving Your Communication Skills, Ava Reed; Amazon Digital Services, Inc; 2014

Social Skills, Gabriel Angelo; SN & NS Publications, 2nd edition; 2014

Personal Profile System - A plan to understanding yourself & others; Carlson Training Products, INscape Publishing, 1994 (classic)

Emotional Intelligence, Goleman, Daniel; Bantam Books, 2nd Edition, 2005 (classic)

Instructor prepared materials