PTEC C112: QUALITY MANAGEMENT

Item	Value
Curriculum Committee Approval Date	11/16/2007
Top Code	099900 - Other Engineering and Related Industrial Technologies
Units	1.5 Total Units
Hours	27 Total Hours (Lecture Hours 27)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	No
Basic Skills	Not Basic Skills (N)
Repeatable	No
Grading Policy	Standard Letter (S), • Pass/No Pass (B)

Course Description

This course will introduce many process industry-related quality concepts, including operating consistency, continuous improvement, plant economics, team skills, and statistical process control (SPC). Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Evaluate quality control programs significant to the process technology industry.(ISO 9000 and Sigma Six).

Course Objectives

- 1. Explain the concepts of Total Quality Management (TQM) and International Standards Organization(ISO)
- 2. Identify ethical and unethical behavior in Quality Management.
- 3. Apply various quality improvement techniques.
- 4. Describe and apply the development and nature of quality control charts.
- 5. List and explain each step in total quality implementation phases.

Lecture Content

TOTAL QUALITY MANAGEMENT (TQM) CUSTOMER SERVICE AND PERSONAL EFFECTIVENESS Definition Win/Win Relationships EFFECTIVE COMMUNICATION AND TEAM SKILLS Verbal Written PROCESS SYSTEMS AND ORGANIZATIONAL BEHAVIOR Process Orientation Process Management VARIANCE AND OPERATING CONSISTENCY Common/Special Causes Standardizations /DO/Check/ ACT Process (SDCA) CONTINUOUS IMPROVEMENT AND CORRECTIONS PREVENTIVE ACTION STATISTICAL THINKING/DATA COLLECTION Statistical Process Control System (SPC) Technical Data

Method(s) of Instruction

- Lecture (02)
- DE Online Lecture (02X)

Instructional Techniques

A variety of instructional techniques will be employed to address different student learning styles. These may include, but are not limited to, lecture, discussion, projects and small group activities. Instruction will be supplemented, where appropriate, by digital media presentations and simulations, industry resources and guest speakers.

Reading Assignments

Complete reading assignments assigned from the textbook, supplemental readings, handouts, internet resources, and any assignments from Coastlines Library.

Writing Assignments

Weekly projects, plans, revisions, discussion topic responses that will demonstrate skills application through authentic quality control projects.

Out-of-class Assignments

Read/View the required materials, conduct appropriate research, prepare documents/plans, complete and revise projects, and prepare for quizzes/ exams.

Demonstration of Critical Thinking

Identify and apply the appropriate quality management policies, procedures and guidelines to demonstrate quality control competency.

Required Writing, Problem Solving, Skills Demonstration

Weekly projects, plans, revisions, written reviews/critiques and discussion topic responses that will demonstrate skills application and problem solving skills through authentic projects.

Eligible Disciplines

Electromechanical technology (industrial mechanical technology): Any bachelors degree and two years of professional experience, or any associate degree and six years of professional experience. Environmental technologies (environmental hazardous material technology, ha...: Any bachelors degree and two years of professional experience, or any associate degree and six years of professional experience. Industrial technology (foundry occupations): Any bachelors degree and two years of professional experience, or any associate degree and six years of professional experience. Mining and metallurgy (oil field operations): Any bachelors degree and two years of professional experience, or any associate degree and six years of professional experience.

Textbooks Resources

1. Required Speegle, M. Quality Concepts for the Process Industry, 2nd ed. 9781435482449: Delmar, 2010 Rationale: - Legacy Textbook Transfer Data: Legacy text

Other Resources

1. Coastline Library