

ATPT 132 Introduction to Process Quality

Credit Hours: 3

Scheduled hours per week

Lecture: 10

Lab: 2

Other: 0

Catalog Course Description:

Equipment roles and control methods are studied for each process system. Emphasis is on the safety of each of these systems and the role played by operator in maintaining the system safely.

Pre-requisites: ATPT 130, ATPT 131, ATPT 140

Co-requisites: None

Course Learning Outcomes:

Understand

- *Develop an understanding of total Quality Management concepts.*
- *Develop Skills in customer service, personal effectiveness, communications, working on teams, and group problem solving.*
- *Develop an understanding of basic quality principles including variance, consistency, and process capability.*
- *Develop an understanding of quality programs including: continuous improvement, waste minimization, corrective and preventative action, six sigma, and 5 s.*
- *Develop an understanding of data collection, control charts, and statistical process control.*

Topics to be studied:

History of Quality

Variability Concepts

Process Capability

Control Charts

Problem solving

Communications

Teams

Root Cause Analysis

Customer Quality

Total Quality Management

Lean

Six Sigma

Kiazen

Five S's

Just in time

Cost of Quality

ISO 9001

Iso 14000

Relationship of Course to Program Learning Outcomes:	
Exhibit knowledge of OSHA General Industry requirements.	
Articulate Total Quality Management concepts including customer service, variance, process capability, continuous improvement, corrective/preventive action, SPC basics, data collection, and control charts.	X
Internalize the process instrumentation that a process technician/operator utilizes in performing job functions.	X
Use the various types of equipment in the process environment in a productive manner, and the interaction of the process operator/technician with it.	
Knowledge of equipment roles and control methods for each process system.	X
Demonstrate safety and the role played by operator in maintaining the system safely.	
Understand and follow Block flow diagrams, P & ID drawings, Process Flow diagrams, 3D drawings, and Plot plans.	
Use critical thinking skills, be able to see and troubleshoot problems in the process through trending and analysis of process parameters. Use critical thinking skills, be able to see and troubleshoot problems in the process through trending and analysis of process parameters.	X
10/20/2017	

Relationship of Course to General Education Learning Outcomes:	
Composition and Rhetoric Students illustrate a fundamental understanding of the best practices of communicating in English and meet the writing standards of their college or program-based communication requirements.	X
Science & Technology Students successfully apply systematic methods of analysis to the natural and physical world, understand scientific knowledge as empirical, and refer to data as a basis for conclusions.	X
Mathematics & Quantitative Skills Students effectively use quantitative techniques and the practical application of numerical, symbolic, or spatial concepts.	X
Society, Diversity, & Connections Students demonstrate understanding of and a logical ability to successfully analyze human behavior, societal and political organization, or communication.	X
Human Inquiry & the Past Students interpret historical events or philosophical perspectives by identifying patterns, applying analytical reasoning, employing methods of critical inquiry, or expanding problem-solving skills.	X
The Arts & Creativity Students successfully articulate and apply methods and principles of critical and creative inquiry to the production or analysis of works of art.	
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Special requirements of the course:

None

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