ATPT 131 Process Safety, Health & Environmental
Credit Hours: 3
Scheduled hours per week
Lecture: 10
Lab: 2
Other: 0

Catalog Course Description:

Safety topics include all OSHA General Industry requirements. Course includes an introduction to the major environmental regulations affecting process industries. Successful completion will result in the issuance of an OSHA 30 Hour Safety Card.

Pre-requisites: None
Co-requisites: None

Course Learning Outcomes:

- *Completion of an OSHA 30-hour General Industry Safety class.*
- *Develop an understanding of hazard recognition for chemical, biological, fire, electrical, radiation, noise, natural disaster, security, and environmental hazards.*
- *Develop a basic understanding of various types of Process Industries.*
- *Develop an understanding of controlling hazards through the elimination of the hazard, use of engineering controls, administrative controls, personal protective equipment, programs and practices, permitting systems, and monitoring equipment.*

Topics to be studied:

- Hazardous communication standard
- Introduction to OSHA
- Material safety data sheets
- Personal protective equipment
- Lock out/tag out
- Fire Hazards
- Emergency egress
- Noise controls
- Electrical safety
- Tool safety
- Management of Safety and Health Programs
- Confined spaced entry

Relationship of Course to Program Learning Outcomes:	
Exhibit knowledge of OSHA General Industry requirements.	x
Articulate Total Quality Management concepts including customer service, variance, process capability, continuous improvement, corrective/preventive action, SPC basics, data collection, and control charts.	
Internalize the process instrumentation that a process technician/operator utilizes in performing job functions.	
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.	x
Understand and follow Block flow diagrams, P & ID drawings, Process Flow diagrams, 3D drawings, and Plot plans.	x
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.	
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.	
10/20/2017	

Special requirements of the course:

None

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