DEPT. RNEW COURSE NUMBER: 1125

NUMBER OF CREDITS: 1 Lecture: 1 Lab: 0 OJT 0

Course Title:
P & ID and PFD Reading

Catalog Description:
P & ID and PFD Reading covers the symbols and diagrams commonly used on Piping and Instrumentation Diagrams (P & ID) and Process Flow Diagrams (PFD). Focus will be on identifying the types of diagrams, identifying instrument symbols and line symbols used on P & ID's, understanding the types of information typically found on a legend, using a P & ID to locate the components of a system, and reading a PFD to trace the flow paths of a system.

Prerequisites or Necessary Entry Skills/Knowledge:
None

FULFILLS MN TRANSFER CURRICULUM AREA(S)
Goal 1: Communication: ____ by meeting the following competencies:

Goal 2: Critical Thinking: ____ by meeting the following competencies:

Goal 3: Natural Sciences: ____ by meeting the following competencies:

Goal 4: Mathematics/Logical Reasoning: ____ by meeting the following competencies:

Goal 5: History and the Social and Behavioral Sciences: ____ by meeting the following competencies:

Goal 6: The Humanities and Fine Arts: ____ by meeting the following competencies:

Goal 7: Human Diversity: ____ by meeting the following competencies:

Goal 8: Global Perspective: ____ by meeting the following competencies:

Goal 9: Ethical and Civic Responsibility: ____ by meeting the following competencies:

Goal 10: People and the Environment: ____ by meeting the following competencies:
### Topics to be Covered
- Technical diagrams used at a process facility
- Instrument symbols
- Line symbols
- Process Flow Diagram (PFD)

### Student Learning Outcomes
1. Identify instrument and major equipment symbols.
2. Describe the process flow of a Dry Mill ethanol plant.
3. Identify and distinguish between various diagrams including PFD and P & ID diagrams.
4. Describe in general terms the type of information found on the various diagrams.
5. Distinguish between process lines and instrument control lines used on a P & ID.
6. Identify control loops on a P & ID and describe their function.

### Is this course part of a transfer pathway:
- Yes
- No

Revised Date: January 2021