COURSE OUTCOME MATRIX
COURSE SYLLABUS
PART 2 of 3

Course Number and Title	MX 250 Basic Instrumentation and Control

Credit Hours	2

Course Description	This course provides basic process fundamentals: introduction to process and energy technology, fundamentals related to all process industries, as well as common industrial components and equipment. Study of common process technology systems such as electrical power generation, electrical and natural gas distribution and typical manufacturing processes are considered.

Prerequisite(s) and/or Corequisite(s)	N/A

Required Textbooks/References/Course Materials:

Instrumentation and Process Control	7th	Weedon	American Technical Publishers, Inc.	0826934463

	General Education Outcomes
1	Utilize written and verbal language to discuss and comprehend information, incorporating a variety of technologies, such as text, data, and images (written language, verbal language, and information technology).
2	Identify and interpret relevant information in order to formulate an opinion or conclusion (critical thinking).
3	Demonstrate and communicate computational methods and mathematical reasoning in a variety of formats (using words, tables, graphs, mathematical equations, etc., as appropriate) (quantitative literacy and fluency).
4	Communicate in appropriate ways with those who are culturally diverse (intercultural competence).

	Program/Department Outcomes
1	Prepare students to become safe and competent electrical technicians
2	Provide opportunities to display critical thinking skills
3	Demonstrate responsible professional conduct and behavior.
4	Effectively communicate.
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	Course Outcomes (CO)	Bloom's Domain for CO (C, A, P), Category, and Level	Program/ Department Outcome(s)	Written Language	Verbal Language	Information Technology	Critical Thinking	Quantitative Literacy and Fluency	Intercultural Competence
1	Comprehend basic process control terminology, P&ID, and safety related concerns.	C-Understanding (2)	1, 3, 4	1	1	1	1	1	0
2	Comprehend basic principles and concepts relative to process control and instrumentation.	C-Understanding (2)	1	1	1	1	1	1	0
3	Comprehend various sensors, transducers, and transmitters (instrumentation) to interface real-world process parameters into (inputs) and from (outputs) their related control systems.	C-Understanding (2)	1, 2	1	1	1	1	2	0
4	Comprehend workplace safety via the lab assignments and lecture discussions.	C-Understanding (2)	1, 4	1	1	1	1	2	0
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6									
7									
8									
9									
10									

Bloom's Domain Legend
C = Cognitive
A = Affective
P = Psychomotor

General Education Outcome Legend
2 = Included and Measurable
1 = Introduced and/or Minimally Addressed and Not Measurable
0 = Not included

Approved: May 2021
Reviewed: November 11, 2021