

# COURSE OUTCOME MATRIX COURSE SYLLABUS PART 2 of 3

Course Number and Title	EG 225 Commercial Wiring
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Credit Hours	4
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Course Description	This course covers the application and use of electrical tools, materials, and test equipment associated with commercial wiring. It includes the NEC requirements, work safety, the reading of blueprints, planning, layout, the installation of conduit and equipment, the wiring of devices such as control panels, motors, breaker systems, and current devices. Upon completion, students should be able to properly install equipment and conduit associated with electrical installations in the commercial field
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Prerequisite(s) and/or Corequisite(s)	MT 124 or MT 124A
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**Required Textbooks/References/Course Materials:**

Electrical Wiring Commercial	17th	Phil Simmons & Ray C. Mullin	Cengage Learning	0357137698
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	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	Describe the organization of the NEC and the updating process; basic safety rules for working electrical systems	C-Remembering (1)	1, 2, 3, 4	1	1	1	2	1	0
2	Describe project requirements, building plans, specifications, and electrical installation requirements	C-Remembering (1)	1, 2, 3, 4	1	1	1	2	1	0
3	Compute loads, number of branch circuit requirements	C-Applying (3)	2, 4	1	1	1	1	2	0
4	Identify switch, receptacle raceway, cable requirements, branch circuits, feeder, conductor size, overcurrent protective device ratings	C-Remembering (1)	1, 2, 3, 4	1	1	1	2	1	0
5	Compute feeder loading, voltage drop, short circuit fault currents	C-Applying (3)	2, 4	1	1	1	1	2	0
6	Describe installation of panel boards, service equipment, grounding	C-Remembering (1)	1, 2, 3, 4	1	1	1	2	1	0
7	Identify transformer connection diagrams, types, classes, and ratings of fuses, and circuit breakers	C-Remembering (1)	1, 2, 3, 4	1	1	1	2	1	0
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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