

**JAMESTOWN COMMUNITY COLLEGE**  
**State University of New York**

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**INSTITUTIONAL COURSE SYLLABUS**

**Course Title:** Electric Motors/Control System

**Course Abbreviation and Number:** ELC 1230

**Credit Hours:** 3

**Course Type:** Lecture/Lab

**Course Description:** Students will learn the fundamental concepts of motors and motor controls. Topics include ladder diagrams, pilot devices, contactors, motor starters, motors, and other control devices. Upon completion, students will be able to properly select, connect, and troubleshoot motors and control circuits.

Prerequisite ELC 1200.

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**Student Learning Outcomes:**

Students who demonstrate understanding can:

1. Interpret electrical drawing
2. Properly identify and understand motor control devices
3. Explain the characteristics of electric motors
4. Properly wire and describe the operation of basic motor control circuits

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**Topics Covered:**

- Safety in the workplace
- Understanding electrical drawings
- Motor transformers and distribution systems
- Motor control devices
- Electric motors
- Contactors and motor starters
- Relays
- Motor control circuits

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**Information for Students**

- Expectations of Students
  - [Civility Statement](#)
  - [Student Responsibility Statement](#)
  - [Academic Integrity Statement](#)
- [Accessibility Services](#)  
Students who require accommodations to complete the requirements and expectations of this course because of a disability must make their accommodation requests to the Accessibility Services Coordinator.
- [Get Help: JCC & Community Resources](#)
- [Emergency Closing Procedures](#)
- Course grade is determined by the instructor based on a combination of factors, including but not limited to, homework, quizzes, exams, projects, and participation. Final course grade can be translated into a grade point value according to the following:

A=4.0	B+=3.5	B=3	C+=2.5	C=2	D+=1.5	D=1	F=0
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- Veterans and active duty military personnel with special circumstances (e.g., upcoming deployments, drill requirements, VA appointments) are welcome and encouraged to communicate these to the instructor.

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**Effective Date:** Fall 2023