**ELC 130 Advanced Motors and Controls**

**Central Piedmont Community College**

Course Description: This course covers motors concepts, construction and characteristics and provides a foundation in motor controls. Topics include motor control ladder logic, starters, timers, overload protection, braking, reduced voltage starting, SCR control, AC/DC drives, system and component level troubleshooting. Upon completion, students should be able to specify, connect, control, troubleshoot, and maintain motors and motor control systems.

Note - The Mechatronics Re-Envisioned Grant’s primary focus was to digitize a portion of the Mechatronics curriculum to encourage student engagement and interaction with topics before they attend class.  This flipped classroom model is a dynamic way to introduce topics via interactive software so that students come to class prepared to dive deeper into the material, receive greater feedback and guidance from instructors, and have more time for hands-on labs and activities. This redesigned curriculum is one of many tools used by the instructor and is in no way a complete course.

Regional industry partners, as well as PMMI, Siemens, and OSHA guide industry standards referenced in this Mechatronics Re-Envisioned content.

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