Assessment: Course Four Column

Courses (CTE) - Electrical Systems Technology

ELM 124:DC Gen, Motors & Controls

Course Outcomes	*Assessment Measures*	*Results*	*Actions*
Application of DC Motor Theory - Understand and apply DC Motor Theory. **Course Outcome Status:** Active **Next Assessment:** 2022-2023	**Homework -** Students are tested on material that was presented in a lecture format, as well as through their own self-study and reading. **Criterion:** Successful completion of homework along with a grade of 70% on tests and quizzes.	**Reporting Period:** 2018-2019 **Criterion Met:** Yes All students were successful in achieving this goal. Some were not successful on their first try, but were given a chance to study the material and retake quizzes or exams for partial credit to bring their grade to a successful level. Results Analysis: Students were overall receptive of the material and put in the time and effort to gain a broad understanding of the required concepts. (09/05/2019)	
Motor control to Series, Shunt, and Compounded DC Motors. - Apply specific types of motor control to Series, Shunt, and Compounded DC Motors. **Course Outcome Status:** Active **Next Assessment:** 2022-2023	**Exam -** Students are tested by identifying types of motors, the types of control required to operate each motor, and required to simulate the situation via software. **Criterion:** Complete all labs, test, and quizzes with a grade of 70%. Labs are overseen and graded by instructor.	**Reporting Period:** 2018-2019 **Criterion Met:** Yes Students were successful in completing the assigned coursework with satisfactory grades. Some students required one-on-one time with the in-class tutor or instructor to aid them in the tasks. Results Analysis: This set of standards is difficult for students to master because they are now beginning to move from the theory world into the hands on world. Making that transition is difficult at first. (09/05/2019)	
Ohm's law to DC Motors requiring values of Voltage, Current, Power - Apply Ohm's law to DC Motors requiring values of Voltage, Current, Power.	**Exam -** Taking Ohm's Law from previous courses, apply to assignments and tests. **Criterion:** Complete all work and tests with a grade of 70%.	**Reporting Period:** 2018-2019 **Criterion Met:** Yes All students were successful in achieving this goal. Using their knowledge from their DC Theory class made this criteria easier for students to master.	

Course Outcomes	Assessment Measures	Results	Actions
Course Outcome Status: Active **Next Assessment:** 2023-2024		Results Analysis: Students were overall receptive of the material and put in the time and effort to gain a broad understanding of the required concepts. (09/05/2019)	
Identify and terminate various types of DC Motors - Identify and terminate various types of DC Motors. **Course Outcome Status:** Active **Next Assessment:** 2023-2024	**Assignment - Lab -** Laboratory assignments and software simulation **Criterion:** Complete all assignments and simulations with a grade of 80%.	**Reporting Period:** 2018-2019 **Criterion Met:** Yes Students successfully completed all labs and simulations using equipment in our lab and computer lab. All students were tested on the material with passing grades. Results Analysis: Students are beginning to appreciate the lab/hands-on time that we are transitioning more into now. Their enthusiasm shows when able to put their theory knowledge to use in the lab. (09/05/2019)	
Connect, operate, and interpret data of a self-excited DC Motor - Connect, operate, and interpret data of a self-excited DC Motor. **Course Outcome Status:** Active **Next Assessment:** 2023-2024	**Assignment - Lab -** Successful completion of LabVolt lab assignments in small groups of 2-3 students. **Criterion:** Grades of 80% are considered successful.	**Reporting Period:** 2018-2019 **Criterion Met:** Yes Students were able to complete all lab assignments on time and with successful grades. Plenty of struggles were had, but students were able to work through the tasks as a group and finish. Results Analysis: Lab assignments are very useful in assuring the students of their classroom knowledge. Being able to put their hands on the equipment and prove what they have learned is vital in this stage of the program. (09/05/2019)	