**Course Assessment Plan**

**Program: Electrical Automation Technology Course Title: Introduce to Automation and Control Circuits**

**Instructor: Matthew Leigh**

**Semester: Fall 2018 Total # Scheduled Sessions:80 Days**

**Action Plan implemented from Spring 2018 Semester**

**Step 1: How will the outcome(s) be assessed to determine achievement?**

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| **Course Outcome** | **Methods of Assessment** | |
| **Assessment Process** | **Level of Achievement** |
| **CLO #4:** Program and wire a PLC integrated with a motor control circuit. | **What:** Course final. The final shall complete this course and will integrate both all the control strategies taught during the Intro to PLC unit.  **How:** Given a real-world control problem, the students are to design a control program inside the PLC to control a hot water tank for a processing plant.  **Who:** Matthew Leigh  **When:** Monday, December 17th through Wednesday December 19th, 2018  **Where: Ranken’s Wentzville location, Taylor Building, room T-103** | **Criteria:**  This hands-on test shall be graded based on the grading rubric given to the students at the beginning of the final exam.  **Success Level:**  Students shall exhibit their knowledge on the written test by achieving a grade of 75% or higher.  **Expected Achievement**: 85% student success level  **Students Included:** All students enrolled in the course |

**Step 2: What were the results, what do they mean, and what is the plan to improve, if needed?**

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| **Course Outcome** | **Assessment Results** | |
| **Analysis** | **Plan for Improvement** |
| **CLO # 4:** Program and wire a PLC integrated with a motor control circuit. | **Date of assessment:** December 17th – 20th.  **Total Number of Students:** Total # students assessed  **Number of students Meeting Success Level:** 11  **Number of students Not Meeting Success Level:** 11  **Key Findings:** This final hands-on appeared to be quite difficult to some students. Although all passed successfully, in future I will prepare for this final (if given in its current form) by having the student program a practice final prior to assessment date.  **Conclusions:** This final was a departure from the previously planned final that was to incorporate both the Manual Motor Controls circuit with a PLC program. Due to the day and night course running the same curriculum, the final need to be revised. In future, if the day and evening programs are to run concurrently, an additional 12 PLCs with associated panel equipment shall need to be purchased. If day and night courses are staggered, this will not be necessary.  **End Result:**  *(Did 85% meet expected achievement as described in Step 1?)*  Achieved  Not Achieved  Inconclusive | **Effect on Student Learning:** Students were able to successfully program a working process they shall encounter in the field. Providing as close to a real-world problem to the students allows them to get fulling prepared for a successful professional career.  **Actions Taken**: As stated in the conclusion, additional equipment may need to be purchased if the day and even courses continue to run concurrently.  **Re-assessment Date:** Summer 2019 |