

## **Industrial Systems Technology Program Level Student Learning Outcomes**

**Students who complete the Industrial Systems program will be able to:**

1. Program PLCs to operate various fluid power and mechanical outputs.
2. Identify the four different types of fluid power directional control valves centers.
3. Wire and diagnosis a three phase nine wire motor.
4. Program PLCs to perform a comparison using limits.
5. Calculate the force of a hydraulic cylinder given the pressure and diameter of the piston.
6. Align two adjacent shafts to within .001 using a laser align tool.
7. Calculate the speed of an output given the input speed of a shaft using a belt and pulley system.
8. Calculate the voltage drop in a direct current series circuit.
9. Calculate the voltage change in an alternating current circuit using a step-down transformer.