Course Title: **EGT 235: Fluid Power**

Course Leader: **Adam C. Bridendolph**

Expected Learning Outcomes for Course:

After successfully completing this course, students will:

- Understand hazards of hydraulic and pneumatic circuits and be able to work safely.
- Understand the concepts of fluid statics and dynamics as applied to commercial and industrial control.
- Recognize standard schematic symbols for common fluid power components.
- Understand and troubleshoot basic fluid power, electro-hydraulic, and electro-pneumatic circuits using schematic diagrams.
- Understand the operation, application, and maintenance of common fluid power components such as pumps, compressors, valves, cylinders, motors, rotary actuators, accumulators, pipe, hose, and fittings.
- Be able to find component application data online.
- Be able to select components from manufacturer's catalogs.

Assessment:
(How do students demonstrate achievement of these outcomes?)

Assignments, laboratory projects, and exams

Validation:
(What methods are used to validate your assessment?)

Feedback from internship employers. Can students effectively design and troubleshoot hydraulic and pneumatic circuits using the trainer?

Results:
(What does the data show?)

Students typically understand the hydraulics portion of the course because they use the trainer to build, test, and troubleshoot hydraulic circuits. Too many students are placed at one trainer since only two trainers are available for the lab portion of the course.

Follow-up:
(How have you used the data to improve student learning?)

Budget Justification:
(What resources are necessary to improve student learning?)

More trainers are required. There are two trainers and they should have no more than 4-5 students per trainer.