

# ELTR 1082 : Pneumatics & Electro-Pneumatics

## **2 credit hours (1 lecture/2 lab)**

This course surveys the basics of pneumatic and electro-pneumatics as they apply to industrial pneumatic systems. The operation and use of components associated with pneumatic systems will be discussed. The student will demonstrate his/her ability in practical application of valves, actuators, cylinders, compressors, filters, and other components common to pneumatic systems. Basic electrical circuits that control common industrial pneumatic circuits will be discussed. The student will demonstrate his/her ability in practical application electro-pneumatics.

## **Prerequisite(s)**

ELTR 1073

## **Topical Outline**

1. Pneumatic System Fundamentals
2. Pneumatic System Components
3. Pneumatic System Conditioning
4. Means of Transmission
5. Pneumatic System Electrical Control
6. Factory Tour
7. Pneumatic Systems Maintenance and Troubleshooting

## **Course Outcomes**

At the end of this course, students will be able to:

1. Perform the basic math functions that pneumatic systems are based on.
2. Design and install basic electrical pneumatic systems.
3. Describe, install, and troubleshoot pneumatics pneumatic systems.
4. Identify pneumatic components commonly used in pneumatic systems.
5. Develop and demonstrate safe work habits and techniques in the use of pneumatic systems.
6. Read and create pneumatic schematic drawings.