



INDUSTRIAL MECHANICS CERTIFICATE

Course Descriptions

INDM 1050 Industrial Safety

Description: This course teaches the rights and responsibilities of workers in the workplace to ensure industrial safety. Students will gain valuable knowledge about how they can protect themselves and others in industrial settings. Students will explore a wide range of topics, including laws, guidelines, behaviors, and equipment related to industrial safety.

INDM 1400 Industrial Mechanics IV

Description: This course teaches linear axis drives, clutches, brakes, piping, fittings and valves. Students will learn relevant industrial skills including identifying, sizing, selecting, installation, operation, performing analysis, design, troubleshooting and maintenance as well as installing a variety of types of piping, fittings and valves including iron pipe, steel tubing, hydraulic hose, plastic pipe, copper tubing, globe valves, gate valves, check valves, and Sloan valves.

INDM 1500 Industrial Pneumatics

Description: This course teaches the fundamentals of pneumatic systems using industrial, agricultural and mobile applications. Students will learn skills in the following areas: safety, basic pneumatic systems design, installation, operation, and performance analysis. Student will also be skilled in more advanced concepts of air logic, ways to decelerate a pneumatic cylinder, how to prevent condensation in a pneumatic circuit, DCV applications, and maintenance.

INDM 1600 Industrial Electrical

Description: This course teaches industry-relevant fundamentals of AC/DC electrical systems used for power and control in industrial, commercial, agricultural, and residential applications as well as commercial and residential applications including single phase AC motors and three-phase AC electric motors, DC electric motors, and DC generators. Students will learn skills in how to operate, install, analyze performance, select electric machines for various applications, design, and troubleshoot basic AC/DC electrical circuits for various applications.

INDM 1620 Industrial Electronics

Description: This course teaches electronic devices control and power machines used in industries throughout the world, from manufacturing and transportation to energy and construction. Students will learn to operate, adjust, and troubleshoot electronic components, circuits, and systems used in these vital machine applications.

INDM 1900 Industrial Controls and PLC

Description: This course teaches industry-relevant skills including how to operate, interface, program, and troubleshoot Programmable Logic Controller systems for a variety of applications.