Industrial Technician Course Schedule
Spring 2022

Basic Industrial Electricity
Students will gain a basic understanding of the principles of electricity, electronic components, standards and schematics. Class and lab sessions will focus on the following: Personal and Equipment Safety, Definitions and Terminology; Basic Principles, Laws and Calculations, AC Principles, Wiring, Schematics and Codes; AC Motors, Lighting and other Equipment; Testing Instruments, Basic Troubleshooting and Repair (AC Equipment and DC/Electronic Equipment); DC Principles and Components; DC Circuits, Diagrams and Schematics; Electronics and Semiconductors.

Course Details:
➢ Day/Time: Mondays and Wednesdays, 9:00 AM – 12:00 PM
➢ Date: January 24 – February 23, 2022
➢ Room: Skou Room 134
➢ Tuition: $995.00 (Books & Materials Included)

Basic Hydraulics
Provides a basic understanding of the operation and maintenance of hydraulic components and systems. Topics to be covered in the classroom and in the lab setting: Principles of Hydraulics; Definitions and Terminology; Hydraulic Symbols and Schematics; Types of Circuits; Pumps (designs and applications); Motors (designs and applications); Cylinders (designs and application); Pressure, Direction and Flow Control Valves; Oil Filtration, Sampling and Fabrication; Fittings (use and identification).

Course Details:
➢ Day/Time: Tuesdays and Thursdays, 3:00 PM – 6:00 PM
➢ Date: January 25 – February 24, 2022
➢ Room: Lecture – Halterman Room 286; Lab – Skou Room 140
➢ Tuition: $865.00 (Books & Materials Included)

Blueprint Reading
Provides basic skills for blueprint applications. Class sessions will focus on the following: Language of industry (universal language, common elements, care of blueprints, technique of reading blueprints); Drafting and Blueprint Reading Procedures (alphabet of lines, basic principles of projections, measurement tools).

Course Details:
➢ Day/Time: Wednesdays, 5:00 PM – 8:00 PM
➢ Date: February 9 – April 13, 2022 (10 weeks)
➢ Room: Halterman Room 280
➢ Tuition: $865.00 (Books & Materials Included)
Industrial Motors & Motor Controls

This course is intended for the participant with some working knowledge and/or experience in industrial electricity. Designed to help prepare participants for employment in the field of industrial electrical maintenance, this course consists of lecture, lab demonstration, and hands-on and software-based lab assignments. Areas covered include: Safety, Understanding electrical drawings, Motor transformer and distribution systems, Motor control devices, Motor principles, DC motors, Three phase AC motors, Single phase AC motors, Motor selection, Motor installation, Motor maintenance and troubleshooting, Motor starters, Relays and logic, Motor control devices and AC and DC drives. (Prerequisite: Basic Industrial Electricity)

**Course Details:**
- Day/Time: Mondays and Wednesdays, 9:00 AM – 12:00 PM
- Date: February 28 – March 30, 2022
- Room: Skou Room 134
- Tuition: $995.00 (Books & Materials Included)

Advanced Hydraulics

A more in-depth look at hydraulic components and systems. Items to be covered will include complex systems of cartridge valves, proportional and servo controls, electrical feedback, closed and open loop control, and hydrostatic drives. Emphasis in the class and lab will be on understanding, troubleshooting and maintenance of these systems. (Prerequisite: Basic Hydraulics)

**Course Details:**
- Day/Time: Tuesdays and Thursdays, 3:00 PM – 6:00 PM
- Date: March 1 – March 31, 2022
- Room: Lecture – Halterman Room 286; Lab – Skou Room 140
- Tuition: $865.00 (Books & Materials Included)