Introduction to Robotics (ROBO 100)

This course introduces participants to robotics and automated systems and their operating characteristics. The course also covers robotics principles of operation and work envelopes, and teaches coordinate systems and how hydraulic, pneumatic, and electromechanical systems function together as one.

BENEFITS TO YOUR ORGANIZATION

- Increased understanding of basic robotics
- Increased productivity of intermediate to advanced production workers
- Increased skill level and confidence of workers

COURSE OBJECTIVES

- Identify the various coordinate types of industrial robots, list the advantages and disadvantages of each, and recognize the work envelope of each
- Classify robots by their power system
- Identify a robot’s axes of motion, determine the importance of each articulation, and determine the total number of degrees of freedom needed to perform a specific job task
- List and describe various end effectors (end of arm tooling) used with robots; select appropriate end effectors for a given job task; and develop criteria to determine where, how, and with what force an end effector should grasp a part
- Describe the hazards associated with robots and determine appropriate safety methods for working around robots
- Measure a robot’s performance, such as speed, positioning accuracy, and repeatability, to determine if a robot meets the manufacturer’s specifications
- Differentiate between different types of path control systems, such as end of limit travel, point-to-point, and continuous path

TRAINING DESCRIPTION AND MATERIALS

This instructor-led course with reference text and workbook focuses on the study and application of robotic systems. Progressive lab assignments and projects allow the student a hands-on approach to learning.

HOURS AND COST

Your Introduction to Robotics course is a 28-hour training activity, scheduled at your convenience for up to a maximum of 10 participants. 2.8 IACET Approved CEUs will be awarded upon successful completion of the course. Pricing includes training administration, instruction, textbook and course materials, and an activity evaluation at the conclusion of training.

Suggested Retail Price: $5,299
(Additional participants may be available at an additional cost)

ACCELERATED CERTIFIED TRAINING
Workforce Development from Ivy Tech Community College

For additional information or to order this course, please contact your account manager.