

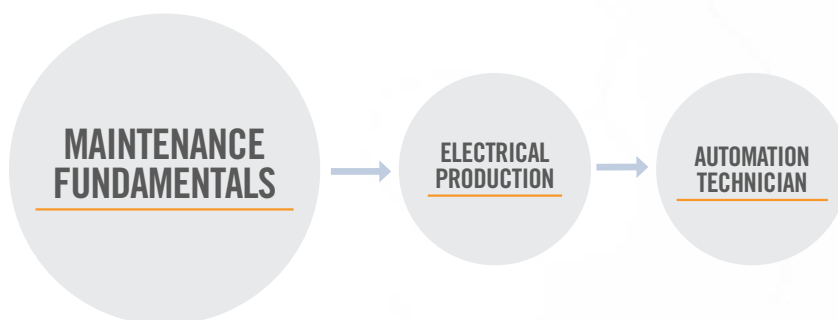
TAKE OFF WITH ADVANCED MANUFACTURING VIRTUAL LEARNING

Virtual Skills Academy from Sandhills Community College offers a quick-start road map that allows individuals to build knowledge in preparation for a career in manufacturing. This online academy is intended to provide basic industrial maintenance understanding and bring awareness to opportunities available within the manufacturing industry. Courses are stacked to follow a job progression plan. Unlike many other training programs, the Virtual Skills Academy requires minimal preparation. It is efficient, effective training that has been developed with input from manufacturing experts.

FLEXIBLE AND CONVENIENT

Online classes are self-paced, and easy to access through smart phones, tablets, and computers. Each course provides pre- and post- assessments and the ability to review and learn through a variety of engaging activities.

CAREER PATHWAY FOR INDUSTRIAL MAINTENANCE TECHNICIAN



Virtual Skills Academy Provides:

- Preset curriculum
- Engaging online classes
- Supplemental videos
- Pre- and post-training knowledge assessments
- Guidance from Sandhills Community College Staff
- Readiness for On-the-Job Training
- Preparation for entry-level jobs in manufacturing
- Demonstrated proof of aptitude
- Opportunity to showcase personal initiative

GEER Scholarships Funding Available
Contact us for more information

www.sandhills.edu/continuing-education | 910-695-3980

Get ready for your career to TAKE OFF

MAINTENANCE FUNDAMENTALS

Math Fundamentals
Math: Fractions and Decimals
Units of Measurement
Basics of Tolerance
Blueprint Reading
Basic Measurement
Calibration Fundamentals
Hole Standards and Inspection
Thread Standards and Inspection
Intro to OSHA
Personal Protective Equipment
Noise Reduction and Hearing Conservation
Respiratory Safety
Lockout/Tagout Procedures
SDS and Hazard Communication
Bloodborne Pathogens
Walking and Working Surfaces
Fire Safety and Prevention
Flammable/Combustible Liquids
Hand and Power Tool Safety
Safety for Lifting Devices
Powered Industrial Truck Safety
Confined Spaces
Introduction to Physical Properties
Introduction to Mechanical Properties
Introduction to Metals
Ferrous Metals
Lean Manufacturing Overview
ISO 9001:2015 Review
Approaches to Maintenance
Total Productive Maintenance
5S Overview
Electrical Units
Safety for Electrical Work
Introduction to Mechanical Systems
Safety for Mechanical Work
Forces of Machines

ELECTRICAL PRODUCTION

Control Panel Functions for the CNC Lathe
Control Panel Functions for the CNC Mill
Introduction to CNC Machines
AC Fundamentals
Conductor Selection
DC Circuit Components
Electrical Instruments
Electrical Print Reading
Introduction to Circuits
Introduction to Magnetism
NEC(R) Overview
Parallel Circuit Calculations
Series Circuit Calculations
Troubleshooting
Essentials of Heat Treatment of Steel
Lubricant Fundamentals
Control Devices
Distribution Systems
Introduction to Electric Motors
Limit Switches and Proximity Sensors
Logic and Line Diagrams
Relays, Contactors, and Motor Starters
Algebra Fundamentals
Geometry: Circles and Polygons
Geometry: Lines and Angles
Geometry: Triangles
Trigonometry: Sine, Cosine, Tangent
Trigonometry: The Pythagorean Theorem
Essentials of Communication
Essentials of Leadership
Overview of Soldering

AUTOMATION TECHNICIAN

Introduction to Fastener Threads
Overview of Non-Threaded Fasteners
Overview of Threaded Fasteners
Threaded Fastener Selection
Tools for Threaded Fasteners
Understanding Torque
Fittings for Fluid Systems
Introduction to Fluid Conductors
Introduction to Hydraulic Components
Introduction to Pneumatic Components
Safety for Hydraulics and Pneumatics
The Forces of Fluid Power
Bearing Applications
Belt Drive Applications
Clutch and Brake Applications
Gear Applications
Mechanical Power Variables
Spring Applications
Basic Programming for PLCs
Basics of Ladder Logic
Data Manipulation
Hand-Held Programmers of PLCs
Hardware for PLCs
Introduction to PLCs
Networking for PLCs
Numbering Systems and Codes
Overview of PLC Registers
PID for PLCs
PLC Counters and Timers
PLC Inputs and Outputs
PLC Installation Practices
PLC Program Control Instructions
Sequencer Instructions for PLCs
Intro to Machine Rigging
Rigging Equipment
Rigging Inspection and Safety
Rigging Mechanics
Concepts of Robot Programming
End Effectors
Robot Axes
Robot Components
Robot Installations
Robot Maintenance
Robot Safety
Robot Sensors
Robot Troubleshooting
Vision Systems

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