

INDUSTRIAL MAINTENANCE TECHNICIAN (ONLINE)

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 PATHWAYS FOR ASSEMBLY JOB ROLES

Combine job roles for learning pathways, or offer single job roles for targeted learning. Large comprehensive programs also available.

ASSEMBLER



MECHANIC



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

MAINTENANCE TECHNICIAN

- Algebra Fundamentals
- Geometry: Lines and Angles
- Geometry: Triangles
- Geometry: Circles and Polygons
- Trigonometry: The Pythagorean Theorem
- Trigonometry: Sine, Cosine, Tangent
- Essentials of Heat Treatment of Steel
- Nonferrous Metals
- Troubleshooting
- Series Circuit Calculations
- Parallel Circuit Calculations
- Battery Selection
- Bearing Applications
- Spring Applications
- Belt Drive Applications
- Gear Applications
- Reversing Motor Circuits
- Specs for Servomotors
- Reduced Voltage Starting
- The Forces of Fluid Power
- Safety for Hydraulics and Pneumatics
- Introduction to Hydraulic Components
- Introduction to Pneumatic Components
- Introduction to Fluid Conductors
- Fittings for Fluid Systems
- Preventative Maintenance for Fluid Systems
- Lubricant Fundamentals
- Mechanical Power Variables
- Clutch and Brake Applications
- Intro to Machine Rigging
- Rigging Equipment
- Rigging Inspection and Safety
- Rigging Mechanics
- Intro to Fastener Threads
- Overview of Threaded Fasteners
- Tools for Threaded Fasteners
- Overview of Non-Threaded Fasteners
- Understanding Torque
- Threaded Fastener Selection Distribution Systems
- Introduction to Electric Motors
- Symbols and Diagrams for Motors
- Logic and Line Diagrams
- DC Motor Applications
- Solenoids
- AC Motor Applications
- Essentials of Leadership
- Essentials of Communication

FLUID SYSTEMS TECHNICIAN

- Benchwork and Layout Operations
- Introduction to CNC Machines
- Control Panel Functions for the CNC Lathe
- Control Panel Functions for the CNC Mill
- Introduction to Circuits
- Introduction to Magnetism
- DC Circuit Components
- NEC Overview
- AC Fundamentals
- Electrical Instruments
- Electrical Print Reading
- DC Power Sources
- AC Power Sources
- Conductor Selection
- Limit Switches and Proximity Sensors
- Hydraulic Power Variables
- Hydraulic Power Sources
- Pneumatic Power Variables Pneumatic Power Sources
- Hydraulic Control Valves
- Hydraulic Schematics and Basic Circuit Design
- Pneumatic Control Valves
- Pneumatic Schematics and Circuit Design
- Actuator Applications
- Hydraulic Fluid Selection
- Contamination and Filter Selection
- Hydraulic Principles and System Design
- Welding Safety Essentials
- PPE for Welding
- Welding Fumes and Gases Safety
- Electrical Safety for Welding
- Introduction to Welding
- Introduction to Welding Processes
- Overview of Soldering
- Plasma Cutting
- SMAW Applications
- GMAW Applications
- What Is Oxyfuel Welding?
- Oxyfuel Welding Applications
- Relays, Contactors, and Motor Starters
- Control Devices
- Distribution Systems

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