



# CERTIFICATIONS BY PROGRAM

## NC3 CERTIFICATIONS: INTEGRATION IS KEY

NC3 certifications can be applied across multiple industries creating flexible, stackable, and relevant credentials to students and employers of all kinds. NC3 certifications are built to be integrated into an existing technical program to enhance what was already being taught. By integrating NC3 industry certifications into existing courses, classrooms achieve the best of both worlds by introducing kinesthetic learning opportunities, industry-valued competencies, and providing students with employment opportunities and relevant job-ready skills.

### CTE FUNDAMENTALS FOR EVERY PROGRAM

These NC3 certifications are critical, fundamental skills that can be applied across all of your CTE programs creating flexible, stackable, and relevant credentials to students and employers of all types. These certifications may be easily added into your classroom first as a foundational skillset.

#### Snap-on

- Precision Measuring Instruments
- Torque Fundamentals
- Multimeter

#### Festo

- Fundamentals of Electricity - AC/DC

#### 3M

- Personal Protective Equipment (PPE)

#### Trane

- Data Analytics

### TRANSPORTATION

#### Snap-on

- Automotive Scanner Diagnostics
- Wheel Service and Alignment
- Rotor Matching Master Technician
- Battery, Starting and Charging
- Diesel Scanner Diagnostics
- Tire Pressure Monitor (TPMS)

#### Kubota

##### Off-Road Diesel Technologies

- Pre-Delivery Inspection (PDI) & Assembly
- Preventative Maintenance Inspection (PMI)
- Maintenance Procedures
- Electrical
- Hydraulics
- Engine
- Powertrain
- Brakes, Steering, Suspension (BSS)

### CONSTRUCTION SCIENCE & ENERGY EFFICIENCY

#### Trane

##### Residential HVAC Systems

- Airflow
- Refrigeration Diagnostics
- Variable Speed Motors
- Air-to-Air Heat Pumps

##### Building Automation Systems

- Intro to HVAC Systems Building Control
- Automation, Spaces, Equipment, Security
- Set Points, Scheduling, Area & VAS, Points
- Chiller Plant Control, Alarms, Events
- Data Logs, Reports, Backup

#### Greenlee

##### Electrical Trades

- Hand Bending
- Basic Conduit Bending
- Advanced Conduit Bending
- Wire Pathways
- Fishing Conduits/Raceways and Cable Pulling
- Electrical Branch/Series and Service Level Wire Termination
- 3-Phase Sequencing and Motor Rotation
- Insulation & Ground Rod Resistance Testing

#### Snap-on

- Building Performance Instruments
- Drop Prevention Systems

#### 3M

- VentureClad Tape



# CERTIFICATIONS BY PROGRAM

## MANUFACTURING

### Festo

#### STEM Lab

- Introduction to Mechatronics

#### Level 1: Fundamentals

- Fundamentals of Industry 4.0
- Fundamentals of Fluid Power - Hydraulics
- Fundamentals of Fluid Power - Pneumatics
- Fundamentals of Electricity - AC/DC
- Fundamentals of Robotics
- Fundamentals of Mechanical Systems
- Fundamentals of Sensor Technology
- Fundamentals of PLCs - Allen Bradley/Siemens
- Certified Industry 4.0 Associate Fundamentals (Capstone)

#### Level 2: Advanced Mechatronics

- Applied Robotics
- Applied Fluid Power
- Applied Product ID Fundamentals
- Applied Industry 4.0
- Applied PLC Technology II: Allen Bradley/Siemens

### Snap-on/Starrett

- Precision Measuring Instruments (PMI)
- Advanced Measuring Instruments (AMI)

### Dremel/Palmer Hamilton

- Idea Builder 3D Printing

### Tormach/Palmer Hamilton

- XS Router Desktop CNC Mill Machine

## WELDING

### Lincoln Electric

#### Introduction

- Welding Safety\*
- Principles of Welding\*
- Shielded Metal Arc Welding (SMAW)
- Flux Cored Arc Welding (FCAW)
- Gas Metal Arc Welding (GMAW)
- Gas Tungsten Arc Welding (GTAW)
- Thermal Cutting: Oxyacetylene
- Thermal Cutting: Plasma
- Thermal Cutting: Carbon Arc Gouging

#### Advanced

- Basic Welding Print Reading
- Welding Math & Measurement
- Shielded Metal Arc Welding (SMAW)
- Flux-Cored Arc Welding (FCAW)
- Gas Metal Arc Welding (GMAW)

## AVIATION

### Snap-on

- Structural Sheetmetal
- Drop Prevention Systems

### Snap-on/DMC

- Precision Electrical Termination (PETC)

## HEALTH & SAFETY

### 3M

#### Personal Protective Equipment (PPE)

- Hearing Protection
- Head, Eye & Face Protection
- Respiratory Protection

### Snap-on

- Drop Prevention Systems
- Hand Tool Safety\*
- Electrical Safety\*

### Lincoln Electric

- Welding Safety\*

## STEM

### Dremel/Palmer Hamilton

- Idea Builder 3D Printing

### Tormach/Palmer Hamilton

- xsTECH Router Desktop CNC Mill Machine

### Festo

- Introduction to Mechatronics
- Fundamentals of Electricity

## DIGITAL LITERACY

### Certiport

- IC3 Digital Literacy

### Dremel/Palmer Hamilton

- Idea Builder 3D Printing

\* Certificate of knowledge included with select certification packages.