INNOVATIVE
Earn-and-Learn Strategies

A project of the Ohio Manufacturing Workforce Partnership

Learn About In-Demand Nationally Portable Manufacturing Credentials

One of the five hallmarks of the Ohio Manufacturing Workforce Partnership (OMWP) earn-and-learn program is **Obtainment of a Nationally-Portable Industry Recognized Credential.** There are several types of credentials that meet this requirement.

TYPES OF CREDENTIALS

- **CERTIFICATION:** A nationally-portable, industry-recognized credential awarded to individuals who pass a standardized assessment that recognizes his or her knowledge, skill, or competency in a particular specialty.
- **CERTIFICATE:** Nationally portable, industry-recognized **CERTIFICATES** are issued by credentialing entities/ authorities with faculty training specific to the certificate
- **REGISTERED APPRENTICESHIP CERTIFICATE:** Registered Apprenticeship programs are awarded a Certificate of Completion from the U.S. Department of Labor (DOL) or the DOL-recognized State Apprenticeship Agency. Ohio has a State Apprenticeship Agency.
- **EDUCATIONAL CREDENTIALS:** College credit-bearing short-term (e.g. one-year) academic certificates (such as post-secondary manufacturing certificate programs that usually require full-time, six-month to one-year completion of required courses or their part-time equivalent,) or AA degrees, and BA or BS degrees.

The primary purpose of this tool is to help sector partnerships, manufacturers, and educators quickly and easily identify the **Industry Recognized Certifications and Certificates** that best align with their upskilling needs.

Nationally portable credentials help businesses clearly communicate their needs and expectations with students and educators. They also give job seekers and employees ways to demonstrate marketable competencies. Credentials provide an objective way for:

- Students to validate the skills and knowledge they can bring to the job;
- Educational providers to establish the value of their product; and
- Employers to have a level of understanding about the skill level of an individual before hiring them.

Embedding nationally portable credentials within work-based learning programs benefits the student, the educational provider, and the employer.

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HOW TO USE THIS TOOL

On the pages that follow, you will find summaries of some of the most commonly accepted and recognized manufacturing-related credentials in Ohio. Many of these credentials are approved by the Ohio Department of Education (ODE) for points towards graduation, recognized by the Ohio Department of Higher Education (ODHE), and/or eligible for Ohio TechCred funding (through the Office of Workforce Transformation).

Credentials are organized into four in-demand career pathways: Machining, Production, Maintenance, and Welding. You will also see Industry 4.0 credentials in each section. Within each of the four pathways, you'll find summaries of the most popular credentials along with links to more information. Scan these summaries to see what competencies and skills the credential assesses, and which best matches the skills and abilities you want your trainees to master. Note that the Production section includes credentials that may also relate to other pathways. If you are looking for foundational or broadly applied skills, take a look there.

Get Involved! Email workforce@ohiomfg.com to connect with your region's sector partnership.

The Ohio Manufacturing Workforce Partnership (OMWP) is a collaboration of The Ohio Manufacturers' Association (OMA) and Ohio TechNet (OTN). Established to address Ohio's manufacturing workforce shortage, the OMWP works directly with a statewide network of manufacturing industry sector partnerships, and is focused on meeting local employment and skill needs.

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Machining Pathway

Make precision parts using machine tools such as lathes, milling machines and grinders using computer-controlled (CNC) machines and manual equipment. Responsibilities include fabricating, modifying or repairing mechanical instruments, applying knowledge of mechanics, mathematics, metal properties, layout, and machining procedures.

COMMON CREDENTIALS:

JOB PLANNING, BENCHWORK & LAYOUT	
Credentialing body	NIMS
Skill level	Entry
Competencies	Applied mathematics, Assembly, Cutting tool selection, Drilling, Filing, Fits, Inspection, Layout, Machine safety, Material preparations, Measurements, Print reading, Process planning, Reaming, Sawing, Shop safety, Threading
Cost	https://www.nims-skills.org/credentialing-fees
More information	https://www.nims-skills.org/credentials/job-planning-benchwork-layout
Accepted by	ODE, ODHE

MEASUREMENT, MATERIALS, AND SAFETY	
Credentialing body	NIMS
Skill level	Entry
Competencies	Applied mathematics, Filing, Fits, Geometrical dimensioning and tolerance (GD&T), Inspection, Machine maintenance, Machine safety, Machining applications, Materials, Measurements, Print reading, Shop safety
Cost	https://www.nims-skills.org/credentialing-fees
More information	https://www.nims-skills.org/credentials/measurement-materials-safety
Accepted by	ODE, ODHE

CNC LATHE OPERATIONS	
Credentialing body	NIMS
Skill level	Entry
Competencies	Applied mathematics, Cutting tool assembly, GD&T, Inspection, Machine maintenance, Machine safety, Machining applications, Measurements, Operations, Print reading, Shop safety
Cost	https://www.nims-skills.org/credentialing-fees
More information	https://www.nims-skills.org/credentials/cnc-lathe-operations
Accepted by	ODE, ODHE

Machining Pathway

CNC LATHE PROGRAMMING SETUP & OPERATIONS	
Credentialing body	NIMS
Skill level	Entry
Competencies	Applied mathematics, Cutting tool assembly, Cutting tool selection, GD&T, Inspection, Machine maintenance, Machine safety, Machining applications, Measurements, Operations, Print reading, Process planning, Programming, Setup, Shop safety
Cost	https://www.nims-skills.org/credentialing-fees
More information	https://www.nims-skills.org/credentials/cnc-lathe-programming-setup-operations
Accepted by	ODE, ODHE

CNC MILL OPERATIONS	
Credentialing body	NIMS
Skill level	Entry
Competencies	Applied mathematics, Cutting tool assembly, GD&T, Inspection, Machining maintenance, Machine safety, Machining applications, Operations, Print reading, Shop safety
Cost	https://www.nims-skills.org/credentialing-fees
More information	https://www.nims-skills.org/credentials/cnc-mill-operations
Accepted by	ODE, ODHE

CNC MILL PROGRAMMING SETUP & OPERATIONS	
Credentialing body	NIMS
Skill level	Entry
Competencies	Applied mathematics, Cutting tool assembly, Cutting tool selection, GD&T, Inspection, Machine maintenance, Machine safety, Machining applications, Measurements, Operations, Print reading, Process planning, Programming, Setup, Shop safety
Cost	https://www.nims-skills.org/credentialing-fees
More information	https://www.nims-skills.org/credentials/cnc-mill-programming-setup-operations
Accepted by	ODE, ODHE

DRILL PRESS I	
Credentialing body	NIMS
Skill level	Entry
Competencies	Applied mathematics, Cutting tool assembly, Cutting tool selection, Inspection, Machine maintenance, Machine safety, Machining applications, Measurements, Operations, Print reading, Process panning, Setup, Shop safety
Cost	https://www.nims-skills.org/credentialing-fees
More information	https://www.nims-skills.org/credentials/drill-press-i
Accepted by	ODE, ODHE

Machining Pathway

EDM II (2-AXIS WIRE)	
Credentialing body	NIMS
Skill level	Advanced
Competencies	Job planning and management, Quality control and inspection, Process adjustment and improvement, General maintenance, Industrial safety and environmental protection, Career management and employment relations, Written and oral communications, Mathematics, Engineering drawings and sketches, Measurement, Metalworking theory, Applied materials
Cost	https://www.nims-skills.org/credentialing-fees
More information	https://www.nims-skills.org/credentials/edm-ii-2-axis-wire
Accepted by	TechCred

GRINDING I	
Credentialing body	NIMS
Skill level	Entry
Competencies	Applied mathematics, Cutting tool selection, GD&T, Inspection, Machine maintenance, Machine safety, Machining applications, Measurements, Operations, Print reading, Process planning, Setup, Shop safety
Cost	https://www.nims-skills.org/credentialing-fees
More information	https://www.nims-skills.org/credentials/grinding-i
Accepted by	ODE, ODHE

MILLING I	
Credentialing body	NIMS
Skill level	Entry
Competencies	Applied mathematics, Cutting tool assembly, Cutting tool selection, GD&T, Inspection, Machine maintenance, Machine safety, Machining applications, Material preparation, Measurements, Operations, Print reading, Process panning, Setup, Shop safety
Cost	https://www.nims-skills.org/credentialing-fees
More information	https://www.nims-skills.org/credentials/milling-i
Accepted by	ODE, ODHE

TURNING I (BETWEEN CENTERS)	
Credentialing body	NIMS
Skill level	Entry
Competencies	Applied mathematics, Cutting tool assembly, Cutting tool selection, GD&T, Inspection, Machine maintenance, Machine safety, Machining applications, Material preparation, Measurements, Operations, Print reading, Process panning, Setup, Shop safety
Cost	https://www.nims-skills.org/credentialing-fees
More information	https://www.nims-skills.org/credentials/turning-i-between-centers
Accepted by	ODE, ODHE

Machining Pathway

TURNING I (CHUCKING SKILLS)	
Credentialing body	NIMS
Skill level	Entry
Competencies	Applied mathematics, Cutting tool assembly, Cutting tool selection, GD&T, Inspection, Machine maintenance, Machine safety, Machining applications, Material preparation, Measurements, Operations, Print reading, Process panning, Setup, Shop safety
Cost	https://www.nims-skills.org/credentialing-fees
More information	https://www.nims-skills.org/credentials/turning-i-chucking-skills
Accepted by	ODE, ODHE

Additional credentials:

CREDENTIAL	ACCEPTED BY	ADDITIONAL INFORMATION
CAMWorks Multi-Axis Milling Essentials	TechCred	Hawk Ridge Systems
FANUC Handling Tool Operation & Programming J2P0310 IACT Approved	ODE, TechCred	FANUC America
FANUC Certified CNC Machining Center Programming, Setup, and Operation	ODE	FANUC America
FANUC Certified CNC Turning Center Programming, Setup, and Operation	ODE	FANUC America
NIMS CAM Milling I	TechCred	NIMS-Skills
NIMS CAM Turning I	TechCred	NIMS-Skills
NIMS Machining Level 1 Certification (multiple credentials)	ODE, ODHE	NIMS Machining Credentials
NIMS Machining Level 2 Certification (multiple credentials)	ODE, ODHE	NIMS Machining Credentials
NIMS Machining Level 3 Certification (multiple credentials)	ODE, ODHE	NIMS Machining Credentials

Production Pathway

Make precision parts using machine tools such as lathes, milling machines and grinders using computer-controlled (CNC) machines and manual equipment. Responsibilities include fabricating, modifying or repairing mechanical instruments, applying knowledge of mechanics, mathematics, metal properties, layout, and machining procedures.

COMMON CREDENTIALS:

CERTIFIED PRODUCTION TECHNICIAN	
Credentialing body	MSSC
Skill level	Entry
Competencies	Safety, Quality practices & measurement, Manufacturing processes & production, Maintenance awareness
Cost	info@msscusa.org • 703-739-9000
More information	https://www.msscusa.org/certification/production-certification-cpt/
Accepted by	ODE, ODHE, TechCred

CERTIFIED QUALITY TECHNICIAN	
Credentialing body	ASQ
Skill level	Advanced
Competencies	Define quality concepts and processes, Apply quality tools, Interpret information and data, Demonstrate statistical terminology and techniques, Collect data for specific techniques, Interpret control chart results, process capability, and specification limits, Select appropriate measurement and test equipment (MT&E). Apply calibration standards hierarchy and traceability for MT&E, Read and interpret blueprints, Apply basic inspection concepts, techniques, and processes, Understand sampling characteristics, types, and selecting samples from lots, Identify and segregate nonconforming material, Understand, apply, and communicate quality audit types and their components, tools, and techniques, Understand risk assessment and mitigation, Apply elements of corrective and preventative actions
Cost	$418 for non-members of ASQ
More information	https://asq.org/cert/quality-technician
Accepted by	ODHE

Production Pathway

CERTIFIED QUALITY INSPECTOR	
Credentialing body	ASQ
Skill level	Entry
Competencies	Demonstrate knowledge of basic statistical terms and techniques, Perform data plotting, Recognize out-of-control conditions, Understand plan-do-check-act (PDCA) and team concepts, Understand types of measurement, scales and terminology, Distinguish between accuracy and precision, Select appropriate measuring tools and techniques, Measure using surface plate layouts and other hand tools, Identify inspection errors and initiate resolution, Demonstrate basic calibration knowledge, Read and interpret blueprints, Define critical, major, and minor blueprint characteristics, Demonstrate knowledge of ASME Y14.5M, GD&T, and x, y, z coordinate systems, Use inspection planning tools, Perform product audits, Determine sample size for lots, Pull random samples, Demonstrate knowledge of testing methods, Identify and report nonconforming material, Understand product, material, and calibration traceability, Demonstrate strong knowledge of basic mathematic operations, Perform measurement conversions
Cost	$418 for non-members of ASQ
More information	https://asq.org/cert/quality-inspector
Accepted by	ODHE

SIX SIGMA BLACK BELT	
Credentialing body	ASQ
Skill level	Advanced
Competencies	Deploy six sigma within a project, Implement tools and techniques to deploy strategic directions for initiatives, Apply operational change management techniques, Define various types of benchmarking, Describe various types of performance measures, Select appropriate financial measure and calculate its result, Demonstrate understanding of components and techniques used in managing teams, Describe elements that can result in team success, Use appropriate techniques to overcome various group dynamics challenges, Select data collection methods and collect voice of the customer data, Use customer feedback to determine customer requirements, Understand elements of a project charter, Use various tools to track project progress, Define and use process flow metrics and analysis tools to indicate process performance, Develop and implement data collection plans, Use techniques in sampling, data capture, and processing tools.
Cost	$538 for non-members of ASQ
More information	https://asq.org/cert/six-sigma-black-belt
Accepted by	ODHE

Production Pathway

Additional credentials:

CREDENTIAL	ACCEPTED BY	ADDITIONAL INFORMATION
ABB IRC5 Operations Web-Based Training	TechCred	ABB
Allen Bradley Accelerated Logix5000 Maintainer Certificate Level 1	TechCred	Rockwell Automation
Allen Bradley Accelerated Logix5000 Programmer Certificate Level 1	TechCred	Rockwell Automation
Allen Bradley ControlLogix / Studio5000 Logix Designer Level 1: Fundamentals and Troubleshooting	TechCred	Rockwell Automation
Allen Bradley ControlLogix Advanced	TechCred	Rockwell Automation
Allen Bradley ControlLogix Advanced Programming Languages	TechCred	Rockwell Automation
Allen Bradley FactoryTalk View ME	TechCred	Rockwell Automation
Allen Bradley FactoryTalk View SE	TechCred	Rockwell Automation
Allen Bradley GuardLogix	TechCred	Rockwell Automation
Allen Bradley Kinetix 5700 Troubleshooting and Project Interpretation	TechCred	Rockwell Automation
Allen Bradley Motion Control Fundamentals using Kinetix 5700 (CIP) Servo Drives	TechCred	Rockwell Automation
Allen Bradley PowerFlex 750-Series Maintenance & Troubleshooting	TechCred	Rockwell Automation
Allen Bradley SLC-500 Advanced	TechCred	Rockwell Automation
Allen Bradley SLC-500 Introduction (Modules 1-3)	TechCred	Rockwell Automation
Allen Bradley Studio 5000 Logix Designer Level 1: CompactLogix Fundamentals and Troubleshooting	TechCred	Rockwell Automation
Allen Bradley Studio 5000 Logix Designer Level 1: ControlLogix System Fundamentals	TechCred	Rockwell Automation
Allen Bradley Studio 5000 Logix Designer Level 2: Basic Ladder Logic Programming	TechCred	Rockwell Automation
Allen Bradley Studio 5000 Logix Designer Level 4: Kinetix 6500 (CIP) Programming	TechCred	Rockwell Automation
Amada AP 100 US Laser	TechCred	Amada
APICS - Certified in Production Inventory Management	ODHE	APICS
APICS - Certified Supply Chain Professional	ODHE	APICS
ASQ Certified Calibration Technician	ODHE	ASQ
ASQ Certified Quality Engineer	ODHE	ASQ
ASQ Certified Quality Manager	ODHE	ASQ
ASQ Certified Quality Process Analyst	ODHE	ASQ
ASQ Six Sigma Green Belt	ODHE	ASQ
AutoCAD Advanced Inventor	TechCred	Certiport
AutoCAD Professional	ODE	Certiport
AutoCAD User	ODE	Certiport
Autodesk Certified Professional: AutoCAD for Design and Drafting	TechCred	AutoDesk

Production Pathway

CREDENTIAL	ACCEPTED BY	ADDITIONAL INFORMATION
Autodesk Certified User in AutoCAD	TechCred, ODHE	Certiport
Autodesk Inventor Advanced Assembly Modelling	TechCred	Certiport
Autodesk Inventor Advanced Part Modelling	TechCred	Certiport
Autodesk Inventor Certified User Certification	TechCred, ODE	Certiport
Autodesk Inventor Professional Simulation Course	TechCred	Certiport
Autodesk/Certiport: AutoCAD Civil 3D	ODHE	Certiport
FANUC Advanced TPP Programming	TechCred	FANUC America
FANUC Dual Check Safety V7.50 & Newer	TechCred	FANUC America
FANUC iRVision	TechCred	FANUC America
FANUC Robot Operations	TechCred	FANUC America
FANUC V-IRVision Operation and Programming	TechCred	FANUC America
FANUC Certified Education Robot Training	ODHE	FANUC America
KUKA KORE Robot Programming and Operation Certification	TechCred, ODE	KUKA
Yaskawa Motoman FS100 / DX100 Basic Programming w/Material Handling (IACET Approved)	TechCred, ODE, ODHE	Motoman
Yaskawa Motoman Robotics DX100	TechCred	Motoman
Yaskawa Motoman Robotics DX200	TechCred	Motoman
Yaskawa Motoman Robotics MLX100	TechCred	Motoman
Yaskawa Motoman Robotics MLX200	TechCred	Motoman
Yaskawa Motoman Robotics NX100	TechCred	Motoman
Manufacturing Skill Standards Council Certified Logistics Technician	ODE, ODHE	MSSC
Manufacturing Skills Standards Council Certified Logistics Associate	ODHE	MSSC
Certified SolidWorks Associate (CSWA)	TechCred, ODE	SolidWorks
Certified SolidWorks Professional (CSWP)	TechCred, ODE	SolidWorks
Mitsubishi GX Works2 Programming (TRSFT101P)	TechCred	Mitsubishi
Mitsubishi GX Works2 Structured Programming (TRSFT104P)	TechCred	Mitsubishi
Mitsubishi GX Works3 Programming (TRSFT108P)	TechCred	Mitsubishi
Mitsubishi Safety Systems iQ-R (TRPLC306P)	TechCred	Mitsubishi
Mitsubishi Safety Systems QS/WS (TRPLC303P)	TechCred	Mitsubishi
IPC J-STD-001	ODE	IPC

Maintenance Pathway

Play a key role by installing machines and equipment and routinely inspecting and maintaining equipment to ensure the facility runs smoothly. Duties may involve installing or repairing electrical and mechanical equipment, preventive maintenance of machines, tools, and equipment, and installing and aligning new equipment.

COMMON CREDENTIALS:

MAINTENANCE OPERATIONS	
Credentialing body	NIMS
Skill level	Entry
Competencies	Safety, health and environmental rules and regulations, Operate a machine, Monitor a machine, Interpret machine operations and maintenance documentation, Perform machine maintenance procedures, Perform preventative maintenance, Perform predictive maintenance, Technical drawings, Selection and safe use of proper hand tools, Move, handle and store materials and equipment, Systems troubleshooting methodologies
Cost	https://www.nims-skills.org/credentialing-fees
More information	https://www.nims-skills.org/credentials/maintenance-operations
Accepted by	ODE, ODHE, TechCred

BASIC MECHANICAL SYSTEMS	
Credentialing body	NIMS
Skill level	Entry
Competencies	Mechanical power transmission safety, Use dimensional measurement tools, Power transmission, Align and adjust a gear drive, Install, algin and adjust a pillow block bearing, Equipment lubrication, Power transmissions troubleshooting
Cost	https://www.nims-skills.org/credentialing-fees
More information	https://www.nims-skills.org/credentials/basic-mechanical-systems
Accepted by	ODE, ODHE, TechCred

ELECTRICAL SYSTEMS	
Credentialing body	NIMS
Skill level	Entry
Competencies	Electrical power and control systems safety, Interpret electrical control and power schematics, Adjust limit switches and electronic sensors, Measure voltage, current and resistance in an electrical circuit, Select, install and test fuses and circuit breakers, Install and test DC electric motors, Install and test AC circuit motors, Install and test electrical relay control components and circuits, Install and test electro-fluid power components and circuits, Test and repair machine electrical ground, Troubleshoot an electrical motor relay control circuit, Troubleshoot a solenoid-operated fluid power relay control circuit, Replace electrical control wiring using terminal attachment, Replace electrical control wiring solder attachment, Transformers
Cost	https://www.nims-skills.org/credentialing-fees
More information	https://www.nims-skills.org/credentials/electrical-systems
Accepted by	ODE, ODHE, TechCred

Maintenance Pathway

BASIC HYDRAULIC SYSTEMS	
Credentialing body	NIMS
Skill level	Entry
Competencies	Fluid power systems safety, Interpret basic fluid power schematics, Start up and shut down a hydraulic system an adjust system pressure, Adjust hydraulic actuator speed using a flow control valve, Service a hydraulic filter, Install hydraulic conductors, Install and test components in a basic hydraulic circuit, Troubleshoot a basic hydraulic circuit
Cost	https://www.nims-skills.org/credentialing-fees
More information	https://www.nims-skills.org/credentials/basic-hydraulic-systems
Accepted by	ODE, ODHE, TechCred

BASIC PNEUMATIC SYSTEMS	
Credentialing body	NIMS
Skill level	Entry
Competencies	Fluid power systems safety, Adjust pneumatic system branch operating pressure using a regulator, Adjust pneumatic actuator speed using a flow control valve, Service a pneumatic filter, Service a pneumatic lubricator, Install pneumatic conductors, Start up and shut down a reciprocating air compressor and adjust operating pressure, Install and test components in a basic pneumatic circuit, Troubleshoot a basic pneumatic circuit
Cost	https://www.nims-skills.org/credentialing-fees
More information	https://www.nims-skills.org/credentials/basic-pneumatic-systems
Accepted by	ODE, ODHE, TechCred

ELECTRONIC CONTROL SYSTEMS	
Credentialing body	NIMS
Skill level	Entry
Competencies	Electronic power and control systems safety rules, Connect and test a DC power supply, Install and test a solid-state relay, Install and test analog electronic sensors, AC variable frequency drive, Transfer programs to programmable controller using a PC, Create basic PLC ladder-style program, Install and test basic PLC components, Basic troubleshooting
Cost	https://www.nims-skills.org/credentialing-fees
More information	https://www.nims-skills.org/credentials/electronic-control-systems
Accepted by	ODE, ODHE, TechCred

Maintenance Pathway

PROCESS CONTROL SYSTEMS	
Credentialing body	NIMS
Skill level	Entry
Competencies	Safety, health, and environmental rules and regulations, Safety data sheets, Technical documentations, Analogue sensors, Final control systems, Single loop process control system
Cost	https://www.nims-skills.org/credentialing-fees
More information	https://www.nims-skills.org/credentials/process-control-systems
Accepted by	ODE, ODHE, TechCred

MAINTENANCE WELDING	
Credentialing body	NIMS
Skill level	Entry
Competencies	Safety, health, and environmental rules and regulations, Safety data sheets, Technical documentations, Acetylene torches for cutting steel, Welding concepts, SMAW welders for basic welds on flat stock, GMAW welders for basic welds on flat stock, Plasma cutters for cutting flat stock
Cost	https://www.nims-skills.org/credentialing-fees
More information	https://www.nims-skills.org/credentials/maintenance-welding
Accepted by	ODE, ODHE, TechCred

MAINTENANCE PIPING	
Credentialing body	NIMS
Skill level	Entry
Competencies	Piping system safety rules, Interpret basic piping schematics, Identification and selection of correct material, Measurement and preparation, Piping systems installation
Cost	https://www.nims-skills.org/credentialing-fees
More information	https://www.nims-skills.org/credentials/maintenance-piping
Accepted by	ODE, ODHE, TechCred

Maintenance Pathway

Additional credentials:

CREDENTIAL	ACCEPTED BY	ADDITIONAL INFORMATION
Allen Bradley PLC	ODE	Automation Training
Coperion K-Tron Control Systems & Feeder Maintenance and Operation	TechCred	Coperion
FANUC Electrical Maintenance with R-301B Controller	TechCred	FANUC America
International Fluid Power Society - Fluid Power Connector and Conductor	ODHE	IFPS
International Fluid Power Society - Hydraulic Specialist	ODHE	IFPS
International Fluid Power Society - Industrial Hydraulic Mechanic	ODHE	IFPS
International Fluid Power Society - Industrial Hydraulic Technician	ODHE	IFPS
International Fluid Power Society - Mobile Hydraulic Mechanic	ODHE	IFPS
International Fluid Power Society - Mobile Hydraulic Technician	ODHE	IFPS
International Fluid Power Society - Pneumatic Mechanic	ODHE	IFPS
International Fluid Power Society - Pneumatic Specialist	ODHE	IFPS
International Fluid Power Society - Pneumatic Technician	ODHE	IFPS
International Society of Automation - Certified Control System Technician (CCST)	TechCred	ISA
NCCER Level 1	ODE	NCCER
NIMS Industrial Technology Maintenance (9 credentials)	ODHE	NIMS
NIMS Machine Maintenance, Service and Repair	ODHE	NIMS
NOCTI Industrial Maintenance Mechanic	TechCred	NOCTI
Mitsubishi PLC Basics (GX Works2)	TechCred	Mitsubishi
Mitsubishi PLC Troubleshooting	TechCred	Mitsubishi

Welding Pathway

Fabricate and assemble metal structures and equipment through the use of welders, cutters, shapers and measuring tools.

COMMON CREDENTIALS:

CERTIFIED WELDER	
Credentialing body	AWS
Skill level	Entry
Competencies	Procedures used in structural steel, petroleum pipelines, sheet metal, and chemical refinery welding industries. Available in multiple areas including: SMAW Plate, GMAW Plate, FCAW Plate, GTAW Plate, SMAW Pipe, GTAW Pipe (Carbon Steel/Stainless Steel), GMAW/SMAW Pipe (Carbon Steel or Chrome PWHT)
Cost	https://www.aws.org/library/doclib/2236-PRICE-LIST-202001.pdf
More information	https://www.aws.org/certification/page/certified-welder-program
Accepted by	ODE, ODHE, TechCred

CERTIFIED WELDING ENGINEER	
Credentialing body	AWS
Skill level	Advanced
Competencies	Basic science fundamentals, Strength of materials, Heat transfer and fluid mechanics, NDE/Weld discontinuities, Welding heat sources and arc physics, Welding processes and controls, Welding and joining metallurgy, Weld design, Brazing and soldering
Cost	https://www.aws.org/library/doclib/2236-PRICE-LIST-202001.pdf
More information	https://www.aws.org/certification/detail/certified-welding-engineer
Accepted by	ODHE

CERTIFIED WELDING INSPECTOR	
Credentialing body	AWS
Skill level	Advanced
Competencies	Prepare reports, Understand the fundamentals of quality welding procedures and quality audits/surveillance, Verify material compliance, Verify welding equipment appropriateness and procedure qualification compliance, perform visual examinations, review welding inspection reports, implement weld inspection quality assurance plans, develop visual inspection training
Cost	https://www.aws.org/library/doclib/2236-PRICE-LIST-202001.pdf
More information	https://www.aws.org/certification/page/certified-welding-inspector-2
Accepted by	ODE, ODHE, TechCred

Welding Pathway

CERTIFIED WELDING FABRICATOR	
Credentialing body	AWS
Skill level	Advanced
Competencies	Document control, Material control, Welding, Inspection, Nonconformance systems, Measuring & testing equipment, Internal quality audits
Cost	https://www.aws.org/library/doclib/2236-PRICE-LIST-202001.pdf
More information	https://www.aws.org/certification/certifiedweldingfabricator
Accepted by	ODHE

CERTIFIED ROBOTIC ARC WELDING OPERATOR/TECHNICIAN	
Credentialing body	AWS
Skill level	Advanced
Competencies	Weld equipment setup, Welding processes, Weld examination, Symbols, Safety, Destructive testing, Conversion and Calculations, Robot programming, Welding procedures, Programming logic, Kinematic concepts, Robotic arc weld cell, Components
Cost	https://www.aws.org/library/doclib/2236-PRICE-LIST-202001.pdf
More information	https://www.aws.org/certification/detail/certified-robotic-arc-welding
Accepted by	ODE, ODHE, TechCred