

Pathway OCCUPATIONS RELATING TO THIS CAREER CLUSTER

Health, Safety & Environmental Assurance	Environmental Engineer • Health and Safety Specialist • Safety Team Leader • Environmental Specialist • Safety Coordinator • Environmental Field Technician
Logistics & Inventory Control	Dispatcher • Freight/Stock/Material Mover • Industrial Truck & Tractor Operator • Materials Handler • Logistical Engineer • Quality Control Technician
Maintenance, Installation & Repair	Computer Repair Technician • Boilermaker • Communication Systems Installer • Laser Systems Technician • Industrial Machinery Mechanic • Instrument Calibration Technician
Manufacturing Production Process Development	Industrial Engineer • Manufacturing Technician • Purchasing Agent • Precision Inspector, Tester and Grader • Production Manager • Electronics Engineer
Production	Welder • Calibration Technician • Precision Layout Worker • Assembler • Tool & Die Maker • Sheet Metal Worker • Micro and Nano Fabrication Technicians
Quality Assurance	Process Control Technician • Inspector • Quality Control Technician • Calibration Technician • Lab Technician • Statistical Process Control (SPC) Coordinator



Trade & Industry – Coordinated Plan of Study

Production	
Course Name	Cr
Welding I (NDSCS) – dual credit option	1
Welding II (NDSCS) – dual credit option	1
Automated Manufacturing I, II or III (South High)	1 to 3

Technology & Engineering

Manufacturing Production Process Development	
Course Name	Cr
Metals I	.5
Metals II	.5
Construction Technology	.5
Design & Drafting	.5
Energy in Motion Innovation	.5
VEX Robotics	.5
Woods I	.5
Woods II	.5

Other Electives to Consider for Manufacturing Pathway Preparation

CTE Electives

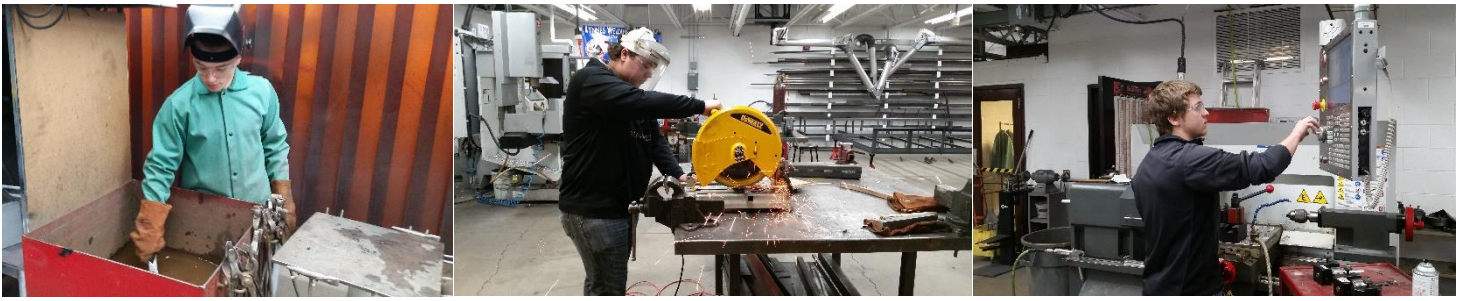
Intro to Engineering, Civil Engineering & Architecture
 Computer Applications, Business and Personal Finance
 Fundamentals of Business
 Marketing
 Living on Your Own

Academic Electives

Arts
 Consumer Math; Geometry
 Environmental Science, Earth Science
 Public Speaking

Is this Pathway for you?

- Are you curious about how things are made or how they work?
- Do you enjoy creating, inventing, or imagining new and different ways to do things?
- Do you consider yourself a leader who could be part of a team?
- Are you curious to work in a laboratory?
- Are you interested in technology and its ongoing innovation?
- Have you ever dreamed of owning your own business?
- Do you like to follow directions and use precise detail to complete a task?
- Are you curious how math/science can be applied to build things or solve problems?



North Dakota Manufacturing Related Postsecondary Programs

Pathway	Associate's Degree or Less	Bachelor's Degree	Master's Degree or More
Health, Safety & Environmental Assurance	<input type="checkbox"/> Emergency Management transfer (NDSCS) <input type="checkbox"/> Environmental Public Health (TMCC) <input type="checkbox"/> Environmental Technology/Science transfer (NHSC, SBC, TMCC, UTTC, WSC)	<input type="checkbox"/> Emergency Management (NDSU) <input type="checkbox"/> Environmental Design (NDSU) <input type="checkbox"/> Environmental Science (DSU, NHSC, SBC) <input type="checkbox"/> Health Communication (NDSU)	<input type="checkbox"/> Emergency Management (NDSU) <input type="checkbox"/> Environmental and Conservation Sciences (NDSU, SBC) <input type="checkbox"/> Environmental Engineering (NDSU, UND)
Logistics & Inventory Control	<input type="checkbox"/> Information Technology (DCB) <input type="checkbox"/> Information Processing Specialist (BSC) <input type="checkbox"/> Management Information Systems (NDSCS)	<input type="checkbox"/> Business Process Integration Management (VCSU) <input type="checkbox"/> Computer Technology Management (DSU) <input type="checkbox"/> Energy Economics and Finance (MiSU) <input type="checkbox"/> Management Information Systems (MiSU, NDSU) <input type="checkbox"/> Operations and Supply Chain Management (UND)	<input type="checkbox"/> Transportation and Logistics (NDSU)
Maintenance, Installation & Repair	<input type="checkbox"/> Electrical Lineworker (BSC) <input type="checkbox"/> Electrical Power Technology (BSC) <input type="checkbox"/> Electrical Transmission Systems Technology (BSC) <input type="checkbox"/> Electronics Technology (BSC) <input type="checkbox"/> Electronics and Telecommunications Technology (BSC) <input type="checkbox"/> Mechanical Maintenance Technology (BSC) <input type="checkbox"/> Welding Technology (BSC, BJCC, LW, NDSCS, NHSC, SBC, TMCC, UTTC, WSC) <input type="checkbox"/> Wind Energy Technician (LRSC)	<input type="checkbox"/> Industrial Technology (UND)	
Manufacturing Process Production Development	<input type="checkbox"/> Engineering Technology (BSC) <input type="checkbox"/> Power Plant Technology (BSC) <input type="checkbox"/> Process Plant Technology (BSC, TMCC) <input type="checkbox"/> Energy Services & Renewable Technician (BSC)	<input type="checkbox"/> Engineering Science (UJ, UM) <input type="checkbox"/> Industrial Engineering and Management (NDSU) <input type="checkbox"/> Manufacturing Engineering (NDSU)	<input type="checkbox"/> Industrial Engineering and Management (NDSU) <input type="checkbox"/> Manufacturing Engineering (NDSU)
Production	<input type="checkbox"/> Heating, Ventilation, and Air Conditioning (BSC, CCCC, NDSCS, TMCC) <input type="checkbox"/> Precision Machining Technology (NDSCS) <input type="checkbox"/> Production Operations/Refinery Training (NHSC) <input type="checkbox"/> Robotics, Automation and Mechatronics Technology (NDSCS) <input type="checkbox"/> Welding Technology (BSC, BJCC, LW, NDSCS, NHSC, SBC, TMCC, UTTC, WSC)	<input type="checkbox"/> Energy Management (BSC)	<input type="checkbox"/> Materials and Nanotechnology (NDSU)
Quality Assurance	<input type="checkbox"/> Instrumentation and Control Technology (BSC)	<input type="checkbox"/> Industrial Engineering and Management (NDSU)	<input type="checkbox"/> Industrial Engineering and Management (NDSU)



SkillsUSA is a local, state, and national co-curricular association serving high school, college and middle school students who are preparing for careers in trade, technical and skilled service occupations, including health occupations. SkillsUSA empowers its members to become world-class workers, leaders and responsible American citizens the SkillsUSA Framework of personal, workplace and technical skills. Contact your SkillsUSA Advisor to learn more.