

Related Training Instruction
New Hampton Community Schools - Welder Combination

Class	Year 1	Year 2	Year 3	Hours	RTI Provider Info
1. Introduction to Drafting and Graphic Design (9 th /10 th)	53	0	0	53	Provider name: New Hampton Community Schools Type of instruction provider: Community School Instruction method: Classroom/Lab Contact person's name: Damian Spratt Address: 710 West Main Street City & State: New Hampton, IA Zip: 50659 Email address: d_spratt@new-hampton.k12.ia.us Phone number: (641) 394-2144
2. Introduction to Manufacturing (9 th /10 th)	53	0	0	53	Provider name: New Hampton Community Schools Type of instruction provider: Community School Instruction method: Classroom/Lab Contact person's name: Damian Spratt Address: 710 West Main Street City & State: New Hampton, IA Zip: 50659 Email address: d_spratt@new-hampton.k12.ia.us Phone number: (641) 394-2144
3. Future Prep (11 th)	0	53	0	53	Provider name: New Hampton Community Schools Type of instruction provider: Community School Instruction method: Classroom/Lab Contact person's name: Krissy Anderson Address: 710 West Main Street City & State: New Hampton, IA Zip: 50659 Email address: k_anderson@new-hampton.k12.ia.us Phone number: (641) 394-2144
4. Building Trades (10 th /11 th)	0	0	53	53	Provider name: New Hampton Community Schools Type of instruction provider: Community School Instruction method: Classroom/Lab Contact person's name: Damian Spratt Address: 710 West Main Street City & State: New Hampton, IA Zip: 50659 Email address: d_spratt@new-hampton.k12.ia.us Phone number: (641) 394-2144
5. Metalworking (10 th /11 th)	0	53	0	53	Provider name: New Hampton Community Schools Type of instruction provider: Community School Instruction method: Classroom/Lab Contact person's name: Damian Spratt Address: 710 West Main Street City & State: New Hampton, IA Zip: 50659 Email address: d_spratt@new-hampton.k12.ia.us Phone number: (641) 394-2144
6. Advanced Manufacturing (11 th /12 th)	0	53	0	53	Provider name: New Hampton Community Schools Type of instruction provider: Community School Instruction method: Classroom/Lab Contact person's name: Damian Spratt Address: 710 West Main Street City & State: New Hampton, IA Zip: 50659

					Email address: d_spratt@new-hampton.k12.ia.us Phone number: (641) 394-2144
7. Blueprint Reading (11 th /12 th)	0	0	55	55	Provider name: New Hampton Community Schools Type of instruction provider: Community School Instruction method: Classroom/Lab Contact person's name: Damian Spratt Address: 710 West Main Street City & State: New Hampton, IA Zip: 50659 Email address: d_spratt@new-hampton.k12.ia.us Phone number: (641) 394-2144
8. Advanced Welding (11 th /12 th)	0	0	80	80	Provider name: New Hampton Community Schools Type of instruction provider: Community School Instruction method: Classroom/Lab Contact person's name: Damian Spratt Address: 710 West Main Street City & State: New Hampton, IA Zip: 50659 Email address: d_spratt@new-hampton.k12.ia.us Phone number: (641) 394-2144
9. Manufacturing Metals (11 th /12 th)	0	53	0	53	Provider name: New Hampton Community Schools Type of instruction provider: Community School Instruction method: Classroom/Lab Contact person's name: Damian Spratt Address: 710 West Main Street City & State: New Hampton, IA Zip: 50659 Email address: d_spratt@new-hampton.k12.ia.us Phone number: (641) 394-2144
10. Fabrication (11 th /12 th)	0	0	53	53	Provider name: New Hampton Community Schools Type of instruction provider: Community School Instruction method: Classroom/Lab Contact person's name: Damian Spratt Address: 710 West Main Street City & State: New Hampton, IA Zip: 50659 Email address: d_spratt@new-hampton.k12.ia.us Phone number: (641) 394-2144
Total Hours	106	222	241	569	

New Hampton High School elects to offer the opportunity to begin Registered Apprenticeship Program in a student's Freshman year. General Welding and Introduction to Manufacturing will be completed in the apprentice's Freshman or Sophomore year to ensure commitment to RA program.

Introduction to Drafting and Graphic Design

Students understand measurement systems as they apply to engineering design.

Students understand the effective use of engineering design equipment.

Students know the various object-editing techniques and CAD programs.

Students understand and apply proper dimensioning to drawings.

Students understand sectional view applications and functions.

Students understand the methods of inserting text into a drawing.

Students understand the sketching process used in concept development.

Students understand sectional view applications and function

Introduction to Manufacturing

Students understand the planning and layout operations used in machine tools and materials forming processes.

Students understand various types of general welding assembly processes.

Students understand how materials can be processed through the use of machine tools, such as milling, drilling, turning, and shaping machines and forming equipment, such as dies, presses and rolls.

Students understand various machining and forming manufacturing systems that require standard hand and machine tools.

Students understand various machining and forming manufacturing systems that require standard hand and machine tools.

Building Trades

Students understand and apply measurement systems in the planning and layout process used in the residential construction industry.

Students understand the safe and appropriate use of hand tools common to the residential and commercial construction industry.

Students understand the safe and appropriate use of portable power tools that are common to the residential construction industry and are appropriate to the individual student's level.

Students understand the value and necessity of practicing occupational safety in the facility and job site.

Metalworking

Students understand the planning and layout operations used in machine tools and materials forming processes.

Students understand how materials can be processed through the use of machine tools, such as milling, drilling, turning and shaping machines and forming equipment, such as dies, presses and rolls.

Students understand various types of machines and forming assembly processes, such as flow, pressure, cold and abrasive bonding, and mechanical fasteners.

Students understand various machining and forming manufacturing systems that require standard hand and machine tools.

Students understand the operations and functions of machine tools in production and prototype work.

Students understand the tolerance relationships between mating parts.

Advanced Manufacturing

Students understand the variety of production processes used in industry.

Design and create products.

Develop a production plan, including the layout, bill of materials and cost analysis for the production.

Use finishing tools and techniques for finishing.

Blueprint Reading

Students use the drafting skills that they learned through the previous classes to determine views of the blueprint.

Students learn the different weld symbols involved in welding blueprints

Students understand the planning and layout operations used in welding processes

Students understand the sketching process used in concept development.

Students understand and apply proper dimensioning to drawings.

Students understand sectional view applications and functions.

Students understand the methods of inserting text into a drawing.

Advanced Welding

Students understand how materials can be processed through the use of welding tools and equipment

Students understand various joining or combining processes, including welding processes used in manufacturing, and maintenance and repair.

Students use ironworker and grinders to clean and prep materials for welding

Students' layout the materials for where items are to be bonded together through the welding process.

Students learn the methods of SMAW and GMAW to bond two pieces of material together.

Students design and use welding symbols in drafts to indicate the welds to be performed and location

Manufacturing Metals

Students understand the planning and layout operations used in machine tools and materials forming processes.

Students understand how materials can be processed through the use of machine tools, such as milling, drilling, turning and shaping machines and forming equipment, such as dies, presses and rolls.

Understand the characteristics of various machining and forming systems used in conventional manufacturing industries, such as open dies, smith forging, blow molding, stamping, drawing, shearing, chip removal, milling, turning and electrical discharge systems.

Fabrication

Students understand various joining or combining processes, including welding processes used in manufacturing, maintenance and repair.

Students understand various automated welding systems, welding design for manufacturing, flexible manufacturing systems and materials resource planning.

Students understand various welding systems that require standard hand and machine tools.

Use welding tools and equipment, such as MIG, TIG, arc, forge and furnace, to combine or join manufactured parts and products, resulting in a finished product that meets industry standards.

Future Prep

CTE.FP.HS.1: Demonstrate transferable workplace skills (soft skills)

Students will Demonstrate competence in the following soft skills: communication, work ethic, dependability/loyalty, teamwork and cooperation, responsibility, flexibility, problem-solving and decision-making, timeliness and tardiness, willingness to learn, working independently, budgeting, time management, goals and career paths

Explore networking with potential future employers

CTE.FP.HS.2: Explore the job market and opportunities for continued education

Exhibit awareness of career opportunities

Grasp concepts involved with pay, unemployment, and benefits

Show understanding of potential opportunities for continued education

CTE.FP.HS.3: Understand industry specific concepts and requirements

Develop and use skill of locating information in workplace examples

Apply ability to read for information to workplace scenarios

Use basic technology as required in the workplace

CTE.FP.HS.4: Prepare skills and necessary documents to enter the job market

Create a resume and cover letter and complete application

Prepare for a job interview

CTE.FP.HS.5: Develop financial literacy skills

Calculate net pay, deductions, fringe benefits, job expenses, commission, net proceeds, rate of commission, sale price, the rate of interest, due date, exact and banker's Interest, compound, and simple interest

Determine costs involved in buying and owning a home and compare to renting

Calculate the cost of buying versus leasing a car or truck

Solve problems involving the purchase of life, homeowners, renters, and car insurance and the Benefits of each