


HIGH SCHOOL: Jefferson High School		BIG SKY PATHWAY PROPOSAL 
COLLEGE: Helena College		
COLLEGE DEGREE PROGRAM: Welding Technology AAS		
Cluster Overview: Jobs in the manufacturing career cluster involve planning, managing, and performing the processing of materials into intermediate or final products and related professional and technical support activities, such as production planning and control, maintenance, and manufacturing/process engineering.	Pathway Options: <ul style="list-style-type: none"> • Production • Manufacturing & Production Process Development • Maintenance, Installation and Repair • Quality Assurance • Logistics and Inventory Control • Health, Safety and Environmental Assurance 	Occupation Examples: Assembler, MIG Welder, TIG Welder, Machine Operator, Sheet Metal Worker, Mechanical Engineer, Industrial Engineer, Quality Control Technician, Safety Technician, Safety Engineer, Dispatcher, Production Manager, Purchasing Agent, Logistician <i>For a complete listing, go to:</i> http://online.onetcenter.org/find/career?c=13&q=Go

SUGGESTED HIGH SCHOOL COURSES

9th	Graduation Requirements Workforce/2-Year College Prep	English I, Algebra, Physical Science, PE/Health	Recommended CTE Cluster Foundation Course(s): Welding I, Drafting 1
	4-Year MT College/Univ Prep (Rigorous Core)		
	CTE and/or Electives	<i>Welding I, Technical Drafting</i>	
10th	Graduation Requirements Workforce/2-Year College Prep	English 2, Geometry, Biology, World History, PE/Health	Recommended CTE Pathway Courses: Welding I, Welding II, Welding III Drafting 1, Mechanical Drafting, Architectural Drafting
	4-Year MT College/Univ Prep (Rigorous Core)		
	CTE and/or Electives	<i>Welding I or II, Technical Drafting, Carpentry, Power Tech,</i>	
11th	Graduation Requirements Workforce/2-Year College Prep	English 3, Algebra 2, Chemistry or Ecology, or Physics, US History	Other Recommended CTE Courses: Intro to Computers, Intro to Business, Personal Finance Carpentry, Power Tech, Accounting I (Start)
	4-Year MT College/Univ Prep (Rigorous Core)		
	CTE and/or Electives	Welding II or Welding III, Architectural Drafting, Advanced CAD, Carpentry, Power Tech	
12th	Graduation Requirements Workforce/2-Year College Prep	English 4, Government, Ecology	Career & Technical Student Organization(s): SkillsUSA, Jefferson High School.
	4-Year MT College/Univ Prep (Rigorous Core)		
	CTE and/or Electives	<i>Welding III, Advanced CAD, Carpentry, Power Tech</i>	

ADVANCED LEARNING OPPORTUNITIES High School to College/Career Linkages

CTE START courses:
Advanced Placement or IB courses:
Dual Enrollment courses:
Welding 112: Cutting Processes
Online courses: Digital Academy
Other:

POSTSECONDARY PROGRAM OF STUDY

	Math	English	Major	Other
13—Semester 1	M111T Technical Math		WLDG 105 Shop Safety, WLDG 117 Blueprint Reading and Weld Symbols, WLDG 132 Estimating of Job Materials, WLDG 133 GMAW, FCAW, and GMAW-P, WLDG 180 Shielded Metal Arc Welding	
13—Semester 2			WLDG 131 Intro to Layout and Pattern Making, WLDG 140 Intro Gas Tungsten ARC Welding (GTAW) - Integrated Lab , WLDG 151 Shop Practices , WLDG155 Design and Fabrication, WLDG 160 Rigging for Welders	CAPP 131 Basic MS Office
14—Semester 1		WRIT 121T Introduction to Technical Writing	WLDG 217 Advanced Blueprint, WLDG 225 Structural Fabrication, WLDG 230 Field Welding and Processes, WLDG 243 Advanced Metal Fabrication I, WLDG 255 CNC Burn Table Programming and Operation	
14—Semester 2			WLDG 213 Pipe Welding Lab I, WLDG 244 Advanced Metal Fabrication II, WLDG 245 Metal Fabrication Design and Construction, WLDG 265 MSHA Safety Training	HR 110T Career Development and Human Relations