



Four Rivers Career Center
Welding
Career Cluster Program of Study
<http://frcc-sdow-mo.schoolloop.com>

Minimum Graduation Requirements		SUGGESTED COURSE OF HIGH SCHOOL STUDY It is suggested that students consider dual credit, articulation, or advanced placement opportunities for postsecondary credit.						
	Grade	English	Math	Science	Social Studies	Electives or Fine/Practical Arts	FRCC and Fine/Practical Arts	Additional Learning Opportunities
Secondary	9	ENGLISH I	PATH A: Algebra I Concepts Pre-Algebra PATH B/C: Algebra I Geometry Honors Geometry	PATH A: Applied Biology PATH B/C: Biology I Honors Biology I	United States History	PATH A/B/C: Modern Manufacturing Into to Metals* Modern Manufacturing Into to Woods* Design and Construction Fine Art PATH B/C: Computer Applications PATH C: World Language	HEALTH & PE	School-Based: <input checked="" type="checkbox"/> Career Research <input checked="" type="checkbox"/> Job Shadowing <input checked="" type="checkbox"/> Service Learning Project Community Based: <input checked="" type="checkbox"/> Volunteer <input checked="" type="checkbox"/> Part-time Employment
	10	PATH A/B/C: English II PATH B/C: Honors English II	PATH A/B: Algebra I Concepts Geometry Concepts Geometry PATH C: Algebra II Honors Algebra II	PATH A/B: Applied Chemistry Chemistry I PATH C: Honors Chemistry I Physics I	World Studies	PATH A/B/C: Modern Manufacturing Metalworking PATH C: PLTW Intro to Engineering/Design World Language	PERSONAL FINANCE (1/2 CREDIT) (Required for graduation; may take during 10 th , 11 th , or 12 th grade)	Assessments/Certifications: <input checked="" type="checkbox"/> Technical Skills Attainment (TSA) AWS SENSE Level One <input checked="" type="checkbox"/> Career Technical Education Cert <input checked="" type="checkbox"/> National Career Readiness Cert. <input checked="" type="checkbox"/> FRCC Soft Skills Assessment
	11	PATH A: Speech and Debate* Technical and Career Writing* PATH B/C: AP Lit & Composition CC Public Speaking CC Comp Embedded English at FRCC (1/2 credit)	PATH A: Geometry Concepts Algebra II Concepts Algebra II PATH B/C: Algebra II (CC) Pre-Calculus Algebra II Embedded Math at FRCC (1/2 credit)	PATH A: Applied Physics PATH B/C: Chemistry I Chemistry II PATH C: AP Chemistry AP Physics I	PATH A/B: Government* Social Studies * PATH C: AP Government	PATH A/B/C: Modern Manufacturing Advanced Metalworking Fine Art choice A+ Tutor* Path B/C ACT Prep*	WELDING TECHNOLOGY I @ FRCC (Embedded English at FRCC – ½ credit – may be taken as replacement for Senior English) Embedded Math at FRCC – ½ credit)	Placement Assessments: <input checked="" type="checkbox"/> Compass Test <input checked="" type="checkbox"/> PLAN <input checked="" type="checkbox"/> ACT <input checked="" type="checkbox"/> ASVAB <input checked="" type="checkbox"/> WorkKeys <input type="checkbox"/> Other: Student Organizations: <input checked="" type="checkbox"/> SkillsUSA
	12	PATH A/B/C: Choice PATH C: AP Lit & Composition CC Public Speaking CC Comp Embedded English at FRCC (1/2 credit)	PATH A: Algebra III Concepts PATH B/C: College Prep Algebra AP Statistics CC Algebra AP Calculus (CC) Pre-Calculus Math Analysis and Statistics Embedded Math at FRCC*	PATH A: Elective Choice Fine Art Choice PATH B/C: Chemistry I Chemistry II AP Chemistry AP Physics	PATH A/B/C: Elective Choice Fine Art Choice	PATH A/B/C: Elective Choice Fine Art Choice A+ Tutor* * ½ Credit hour	WELDING TECHNOLOGY II @ FRCC (Embedded English at FRCC – ½ credit – may be taken as replacement for Senior English) Embedded Math at FRCC – ½ credit)	36 DUAL CREDIT HOURS OFFERED THROUGH EAST CENTRAL COLLEGE Articulation Agreement State Technical College

PATH A – OFF TO WORK

PATH B – ASSOCIATE'S DEGREE/PROFESSIONAL CERTIFICATION

PATH C – 4-YEAR DEGREE AND BEYOND

Academic Focus for Success at Four Rivers Career Center						
Focus on Academics	Core Academics		Physical/Health	Fine/Practical Arts	Professionalism	
	Mathematics: <ul style="list-style-type: none">• Basic math• Metric• Fractions• Decimals• Percentages• Problem solving	Science: <ul style="list-style-type: none">• Metallurgy• Physical Science• Principles of electricity• Basic physics• Thermal dynamics	<ul style="list-style-type: none">• Manual dexterity• Fine motor skills• Hand/eye coordination• Balance• Mobility	<ul style="list-style-type: none">• Blueprint reading• Welding symbols• Metal shop• Wood shop	<ul style="list-style-type: none">• Reliable• Motivated• Work independently• Follow multi-step directions• Prepared daily• Teamwork• Attention to detail• Code of ethics• Flexible• Task oriented• Punctual• Professional attitude• Professional communication• Trade related professional attire• Respectful and courteous• Competent• Enthusiastic• Empathetic• Anger management	
	Embedded English : <ul style="list-style-type: none">• Analyze informational text• Application process• Build technical vocab• Career specific research• Career specific writing• Cite textual evidence• Interview skills• Oral presentations/ collaborative discussion• Resume development	English Language Arts: <ul style="list-style-type: none">• Technical reading• Technical vocabulary• Some lengthy writing• Locating information	Safety: <ul style="list-style-type: none">• Basic shop safety• First aid• Awareness of dangers in the shop or job site			
		Social Studies: <ul style="list-style-type: none">• Occupational opportunities in welding• Government regulations for welds• Certifications				
		General: <ul style="list-style-type: none">• Task completion• Mechanical ability• Work ethic				
	Sample Careers By Educational Level - For Occupational Specialties, go to www.careerclusters.org or www.missouriconnections.org					
	On-The-Job Training or Less		Technical Training or Associate Degree	Bachelors Degree	Masters Degree or More	
	Machinists Metal and Plastic Processing Workers Precision Assemblers Quality Control Inspectors Tool Grinders Brazer		Semiconductor Processing Operators Welders and Solderers Welding and Soldering Machine Operators	Occupational Health and Safety Specialists Safety Engineers		