

DISTRICT NAME:

CTE Course Description and Standards Crosswalk

Course Information	
Course Name	Welding I
Course Number	II775
Number of High School Credits	.5
Sequence or CTEPS (You must first have the Sequence or CTEPS entered into the EED-CTE system.)	A & C, Manufacturing and Transportation
Date of district Course Revision	November 2013
Career & Technical Student Organization (CTSO)	
CTSO embedded in this sequence	
Occupational Standards	
Source of Occupational Standards	American Welding Society (AWS)
Names/Numbers of Occupational Standards	Certified Welder – AWS
Registration Information	
Course Description (brief paragraph – as shown in your student handbook or course list)	Welding 1 will give the student a beginning level of exposure to oxy-acetylene welding, GMAW, SMAW and cutting operations, grinding operations and arc welding. At the end of this course students will be basic in flat, butt, fillet and outside corner. Safe equipment use and processes will be covered.
Instructional Topic Headings (please separate each heading by a semi-colon)	Safety and health, Tools and equipment, Metallurgy, Oxy-Acetylene processes, Shielded metal arc processes, Fabrication manufacturing, Welding careers.
Summative Assessments and Standards	
Technical Skills Assessment (TSA)	N
Course addresses:	
New Alaska ELA and Math Standards	Y
Alaska Cultural Standards	Y
All Aspects of Industry (AAI)	Y

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Core Technical Standards	Y
Employability Standards	Y
Employability Standards	
Source of Employability Standards	State of Alaska
Tech Prep	
Current Tech Prep Articulation Agreement? (Y/N)	N
Date of Current Agreement	
Postsecondary Institution Name	
Postsecondary Course Name	
Postsecondary Course Number	
# of Postsecondary Credits	

Additional CTE Course Information

Author	
Course developed by	KPBSD
Course adapted from	Previous Version
Date of previous course revision	Nov. 2013
Course Delivery Model	
Is the course brokered through another institution or agency? (Y/N)	No

Standards Alignment

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standard	Common Technical Core Standards	New Alaska ENG/LA Standards	New Alaska Math Standards	Alaska Cultural Standards	Employability/ Career Readiness Standards	All Aspects of Industry/ Systems	Assessment

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Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standard	Common Technical Core Standards	New Alaska ENG/LA Standards	New Alaska Math Standards	Alaska Cultural Standards	Employability/ Career Readiness Standards	All Aspects of Industry/ Systems	Assessment
1. Demonstrate safe shop procedures in all welding techniques.	AWS 1.21	MN-3 MN-HSE-1-3 MN-PRO-2	R.1.9-12 R.2.9-12 R.3.9-12 R.4.9-12		C3	A6	HSE PWH	Pre / Post Test
2. Identify and properly use welding tools and equipment for each welding process.	AWS-AD 1.5.34	MN-6 MN-1	R.1.9-12 R.2.9-12 R.3.9-12 R.4.9-12 R.9.9-12	M2.4.1-4		A2	HSE TP	Pre / Post Test
3. Utilize measurements and measuring devices.	AWS-AD 1.6.4	MN-6 MN-PPD-1	R.3.9-12	M2.4.1, 2.4.3	E3	A2	TP	Pre / Post Test
4. Understand, identify, and interpret shop drawings.	AWS-EX 1.1.7d	MN-PPD-2 MN-PPD-1	R.2.9-12	M7.4.1		A2	TP	Pre / Post Test
5. Identify metal properties and the metallurgy of a weld bead.	AWS-AD 1.8a	MN-6MN- MIR-1 MN-PPD-1	R.4.9-12 W.2b.9-12		B4		TP	Pre / Post Test
6. Evaluate and discuss possible welding careers.		MN-4 MN-1 MN-MIR-1	W.8.9-12 W.9.9-12 R.2.9-12 R.1.9-12	M.10.4.2	A7	A4	TP L F	Class Discussion/ industry expert
7. Introduce the GMAW, SMAW process and various weld types.	AWS-AD 1.10.1d	MN-6 MN-MIR-1 MN-PPD-1	R.1.9-12 R.2.9-12 R.3.9-12 R.4.9-12		B4	B2 B3 B4 B5	TP	Lab Assignment

Instructional Resources

DISTRICT NAME:

List the major instructional resources used for this course: (websites, textbooks, essential equipment, reference materials, supplies)

Welding Technology Fundamentals, by Bowditch, 4th Edition, 2010

**Hobart Institute of Welding Technology Training Workbooks, SMAW, GTAW, GMAW, OAW, FCAW, 1997, www.welding.org
American Welding Society: <http://www.aws.org/certification/CW/>**

NCCER: <http://www.nccer.org>

[Http://www.youtube.com](http://www.youtube.com)