

DISTRICT NAME:

CTE Course Description and Standards Crosswalk

Course Information

Course Name	Metals Processes I
Course Number	II765
Number of High School Credits	.5
Sequence or CTEPS (You must first have the Sequence or CTEPS entered into the EED-CTE system.)	Construction Management Engineering
Date of district Course Revision	November 2013

Career & Technical Student Organization (CTSO)

CTSO embedded in this sequence	Skills USA
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Occupational Standards

Source of Occupational Standards	Skills USA, American Welding Society (AWS) & NCCER
Names/Numbers of Occupational Standards	Skills USA Welding, Certified Welder – AWS – [C], Core-[C]

Registration Information

Course Description (brief paragraph – as shown in your student handbook or course list)	Metals 1 is designed to give the student an exploratory view of the different types of both hot and cold metal working processes.
Instructional Topic Headings (please separate each heading by a semi-colon)	Safety, Bent metal processes, Types of metals, Sheet metal processes, Spot welding, Forging, Oxy-Acetylene welding, Arc Welding

Summative Assessments and Standards

Technical Skills Assessment (TSA)	Y
Course addresses:	
New Alaska ELA and Math Standards	Y
Alaska Cultural Standards	Y
All Aspects of Industry (AAI)	Y
Core Technical Standards	Y
Employability Standards	Y

Employability Standards

DISTRICT NAME:

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	

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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
1. Describe safe shop procedures for work areas.	AWS-EX 1.2.1 HSE2 NCCER – Core #1	MN-3 MN-HSE-1 MN-MIR-2 MN-PRO-5	R.1.9-12 R.2.9-12 R.3.9-12 R.4.9-12		C3	A6	HSE	Pre / Post Test
2. Identify ferrous and non-ferrous metals.	AWS-MS 1.7.3	MN-6 MN-PPD-1	R.9.9-12 R.4.9-12		B4	A2	TP	Pre / Post Test
3. Demonstrate pattern development and equipment processes for sheet metal.		MN-6 MN-PPD-1	R.3.9-12 R.4.9-12		B4	A2, A6	TP	Lab Assignment
4. Identify tools and equipment used in wrought metal bending.		MN-6	R.3.9-12 R.4.9-12		B4	A2	TP	Lab Assignment
5. Perform the spot welding metal process.		MN-6 MN-PPD-1	R.3.9-12 R.4.9-12	M2.4.1-4	B4	A2, A6	TP	Lab Assignment

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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
6. Demonstrate the proper oxy-acetylene cutting, welding, and brazing procedures.	AWS 1.4	MN-6 MN-PPD-1	R.3.9-12 R.4.9-12	M2.4.1-4	B4	A2, A6	TP	Lab Assignment
7. Demonstrate the proper arc welding procedures.	AWS-AD 1.10.1d	MN-6 MN-PPD-1	R.3.9-12 R.4.9-12	M2.4.1-4	B4	A2, A6	TP	Lab Assignment
Describe career opportunities and means to achieve those opportunities in the welding/manufacturing career pathways.		MN-4	W.8.9-12 W.9.9-12 R.2.9-12 R.1.9-12		B4	A2, A3, A5,	L, PWH, C	Oral Report

Instructional Resources

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

METALWORK Technology and Practice by Repp & McCarthy, Glencoe Publishing, 1989

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

AWS: <http://www.aws.org/w/a/certification/index.html>

SkillsUSA: <http://www.skillsusa.org>

NIMS: National Institute for Metalworking Skills, Inc.: <https://www.nims-skills.org/web/nims/home>