

<b>HS Name:</b>		<b>High School: Scappoose</b>											
<b>Community College Name:</b>		<b>Portland Community College</b>											
<b>CTE Program of Study:</b>		<b>I&amp;E MANUFACTURING</b>											
<b>Date:</b>		<b>June-11</b>											
<b>Skill Set Crosswalk for Cluster Area-- Manufacturing</b> <a href="http://www.ode.state.or.us/apps/oss/default.aspx?cla=311&amp;c=952">http://www.ode.state.or.us/apps/oss/default.aspx?cla=311&amp;c=952</a>		<b>HS-Manuf 1</b>	<b>HS-Manuf 2</b>	<b>HS-Adv Manuf</b>	<b>CC-MCH 101</b>	<b>CC-MCH 102</b>	<b>CC-MCH120</b>	<b>CC-MCH 121</b>	<b>CC-MCH 125</b>	<b>CC-MCH 130</b>	<b>CC-MCH 145</b>	<b>CC-MCH 160</b>	<b>CC-MCH 180</b>
		Code & #	Standard										
MNZ01.01	Use mathematics in the manufacturing process.	X	X	X			x		x	x			
MNZ01.02	Understand the application of the principles of science used in manufacturing.	X	X	X							x	x	x
MNZ05.01	Summarize and explain how manufacturing businesses operate to demonstrate an understanding of key functions within organizations in the industry.			X		x							
MNZ05.02	Analyze and summarize how manufacturing businesses improve performance to demonstrate an understanding of various methods for enhancing production.	X	X	X		x							
MNZ06.01	Maintain safe and healthful working conditions and environment to ensure employee safety.	X	X	X	x								
MNZ06.02	Understand employee rights and responsibilities and employers obligations concerning occupational safety and health.	X	X	X	x								
MNZ06.03	Assess types and sources of workplace hazards in order to maintain safe working conditions in a manufacturing business environment.	X	X	X	x								
MNZ06.04	Control workplace hazards in order to maintain safe working conditions in a manufacturing business environment.	X	X	X	x								
MNZ10.01	Describe and employ technical skills and knowledge required for careers in manufacturing in order to perform basic workplace activities common to manufacturing.	X	X	X			x						

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**Skill Set Crosswalk for Maching & Metalforming Focus Area**

Code & #	Standard	HS-Manuf 1	HS-Manuf 2	HS-Adv Manuf	CC-MCH 123	CC-MCH 160	CC-MCH 151	CC-MCH 150	CC-MCH 175	CC-MCH 180	CC-MCH 190	CC-MCH 195	CC-MCH 205	CC_MCH 245	CC-MCH 225
MNPH10.01	Perform skills necessary to operate metalforming equipment.	X	X	X	x										
MNPH10.02	Handle materials used in metalforming operations.	X	X	X	x										
MNPH10.03	Perform skills necessary in planning and controlling metalforming operations.	X	X	X	x										
MNPH10.04	Perform bench operations related to machining.	X	X	X		x									
MNPH10.05	Perform metal cutting operations on a lathe.	X	X	X						x	x	x			
MNPH10.06	Perform metal cutting operations on a mill.	X	X	X					x				x		
MNPH10.08	Perform metal cutting operations using a drill press.	X	X	X		x									
MNPH10.09	Perform metal cutting operations using grinding equipment.	X	X	X											x
MNPH10.10	Perform inspection and quality assurance procedures in machining.	X	X	X			x	x							
MNPH10.11	Understand properties of materials and their relationship to machining processes.		X	X										x	

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<b>Skill Set Crosswalk for Welding Focus Area</b>		<b>HS-Manuf 1</b>	<b>HS-Manuf 2</b>	<b>HS-Adv Manuf</b>	<b>CC-WLD 111</b>	<b>CC-WLD 112</b>	<b>CC-WLD 113</b>	<b>CC-WLD 114</b>	<b>CC-WLD 131</b>	<b>CC-WLD 132</b>	<b>CC- WLD 261</b>	<b>CC- WLD 262</b>	<b>CC- WLD 271</b>
<b>Code &amp; #</b>	<b>Standard</b>												
MNPG06.01	Perform safety, health, inspection, and repair processes related to welding and thermal cutting.	X	X	X	x	x	x	x	x	x	x	x	x
MNPG10.01	Perform entry level welding processes using a variety of welding technologies including shielded metal arc welding (SMAW), gas metal arc welding (GMAW), flux cored arc welding (FCAW), and gas tungsten welding (GTAW).	X	X	X	x	x	x	x	x	x	x	x	x
MNPG10.02	Perform thermal cutting process using a variety of technologies including manual oxyfuel gas cutting (OFC), mechanized oxyfuel gas cutting (track burner), plasma arc cutting (PAC), and air carbon arc cutting (CAC-A).	X	X	X	x	x	x	x	x	x	x	x	x
MNPG10.03	Interpret drawing and welding symbols.		X	X	x	x	x	x	x	x	x	x	x
MNPG10.04	Perform advanced level welding processes using a variety of welding technologies including shielded metal arc welding (SMAW), gas metal arc welding (GMAW), flux cored arc welding (FCAW), and gas tungsten welding (GTAW).			X	x	x	x	x	x	x	x	x	x
MNPG10.05	Perform operations related to shop equipment used in welding, layout, and part preparation.			X	x	x	x	x	x	x	x	x	x
MNPG10.06	Understand basic welding metallurgy.			X	x	x	x	x	x	x	x	x	x

**HS Name: SCAPPOOSE HS**  
**Community College Name: PCC**  
**CTE Program of Study: I&E MANUFACTURING**  
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## Skill Set Crosswalk for Mechanical CAD/Drafting Focus Area

Code & #	Standard	HS-3-D Computer Des 1	HS-3-D Computer Des 2	CC-MCH 272	CC-DFT 117
MNPJ10.02	Interpret engineering documents and control documents.	X	X		X
MNPJ10.02	Interpret engineering documents and control documents.	X	X		X
MNPJ10.03	Create technical sketches using drafting procedures.	X	X		X
MNPJ10.04	Use a CADD system and procedures.	X	X	X	X
MNPJ10.05	Detail projection views/components.	X	X		X
MNPJ10.06	Explore mechanical drafting/design concepts and problems.	X	X	X	X
MNPJ10.07	Demonstrate drafting/design concepts as related to basic manufacturing processes.	X	X	X	X
MNPJ10.08	Incorporate geometric dimensioning and tolerancing (GDT) standards.	X	X		X
MNPJ10.09	Depict assemblies of components.	X	X		X