

High School Name:
Community College Name:
CTE Program of Study Name:
Date:

Portland Community College
Manufacturing
12/1/2016

Manufacturing Cluster

2016

Skills-to-Course Matrix

Instructions: 1) Enter your high school name above. 2) Enter the community college name. 3) Enter the Program of Study name. 4) Enter the date. 5) Click on Course 1, Course 2, etc. below and replace with your POS course names (or numbers). 6) Check those courses that trigger the TSA for this POS. 7) Finally, check those standards that are taught with intent and purpose, and are assessed in each course. Note: You only need to use the optional Focus Area tabs below if you are using those skill sets for multiple options in a Program of Study or if you want to use another set of industry validated standards.

Cluster Knowledge and Skills (CTE standards)

			MCH 100	MCH 105	MCH 135	MCH 120	MCH 121	MCH 115	MCH 125	MCH 130	MCH 150	MCH 205	MCH 272	MSD 115	MCH 278	MCH 280	MCH 288A
CCTC	Code Number	KS Statement	TSA?	TSA?	TSA?	TSA?	TSA?	TSA?	TSA?	TSA?	TSA?	TSA?	TSA?	TSA?	TSA?	TSA?	TSA?
MN 1	MN01	Evaluate the nature and scope of the Manufacturing Career Cluster™ and the role of manufacturing in society and in the economy.	X														
MN 2	MN02	Analyze and summarize how manufacturing businesses improve performance.									X						
MN 3	MN03	Comply with federal, state and local regulations to ensure worker safety and health and environmental work practices.	X	X					X		X						
MN 4	MN04	Describe career opportunities and means to achieve those opportunities in each of the Manufacturing Career Pathways.		X					X								
MN 5	MN05	Describe government policies and industry standards that apply to manufacturing.	X	X					X								
MN 6	MN06	Describe government policies and industry standards that apply to manufacturing.	X	X					X								

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MCH 100 MCH 105 MCH 135 MCH 120 MCH 121 MCH 115 MCH 125 MCH 130 MCH 150 MCH 205 MCH 272 MSD 115 MCH 278 MCH 280 MCH 288A

[illegible]

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2016

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High School Name:
Community College Name: Portland Community College
CTE Program of Study Name: Manufacturing
Date: 12/1/2016

Machining & Metalforming Focus Area

2016

Skills-to-Course Matrix

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Focus Area Knowledge and Skills (CTE standards)

			MCH 100	MCH 105	MCH 135	MCH 120	MCH 121	MCH 115	MCH 125	MCH 130	MCH 150	MCH 205	MCH 272	MSD 115	MCH 278	MCH 280	MCH 288A
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	MNMF01	Perform skills necessary to operate metalforming equipment.										X	X				X
	MNMF02	Handle materials used in metalforming operations.							X			X					
	MNMF03	Perform skills necessary in planning and controlling metalforming operations.										X	X				
	MNMF04	Perform bench operations related to machining.										X					
	MNMF05	Perform metal cutting operations on a lathe.					X										
	MNMF06	Perform metal cutting operations on a mill.					X					X			X		X
	MNMF07	Perform metal cutting operations using contour sawing and electric discharge.															
	MNMF08	Perform metal cutting operations using a drill press.					X					X					
	MNMF09	Perform metal cutting operations using grinding equipment.										X					
	MNMF10	Perform inspection and quality assurance procedures in machining.					X					X	X				
	MNMF11	Understand properties of materials and their relationship to machining processes.					X	X				X	X				X

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Skills-to-Course Matrix

Focus Area Knowledge and Skills (CTE standards)

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Mechanical CAD/Drafting Focus Area

2016

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	MNPJ01	Apply measurement and scale concepts in drafting and design.		X		X					X		X				
	MNPJ02	Interpret engineering documents and control documents.											X				
	MNPJ03	Create technical sketches using drafting procedures.		X									X				
	MNPJ04	Use a CADD system and procedures.											X				
	MNPJ05	Detail projection views/components.											X				
	MNPJ06	Explore mechanical drafting/design concepts and problems.											X				
	MNPJ07	Demonstrate drafting/design concepts as related to basic manufacturing processes.		X									X				
	MNPJ08	Incorporate geometric dimensioning and tolerancing (GDT) standards.						X			X		X				
	MNPJ09	Depict assemblies of components.											X				

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Secondary Wood Products Focus Area

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	MNWPO1	Understand manufacturing processes related to secondary wood products.					X					X			X		X
	MNWPO2	Understand characteristics and properties of materials used in manufacturing secondary wood products.					X					X			X		X
	MNWPO3	Use appropriate techniques in manufacturing of secondary wood products.					X					X			X		X

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