2019

Skills-to-Course Matrix

Construction Tech

Merlo Station High School
Portland Community College
6/4/2019

Architecture & Construction Cluster

Instructions: 1) Enter the Program of Study name above. 2) Enter your high school name. 3) Enter the community college name. 4) Enter the date. 5) Click on the cell for Course 1 Name, Course 2 Name, etc., and replace with your POS course names--secondary and first year of post-secondary. 6) Enter school course numbers. 7) Enter NCES code for the course (secondary only). 8) Enter number of credits awarded. 9) Identify those courses that trigger the TSA for this POS. 10) Finally, check those standards that are taught with intent and purpose, and are assessed in each course. Note: The optional Focus Area tabs below are included for those POSs that have a very specific industry fociusare using those skill sets for multiple options in a Progam of Study or if you want to use another set of industry validated standards.

			Construction 1a	Construction 1b	Construction 2a	Construction 2b	[Course 5 Name]	[Course 6 Name]	[Course 7 Name]	[Course 8 Name]	[Course 9 Name]	[Course 10 Name]
			A5901	A5902	A5911	A5912	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]
			17002	17002	17002	17002	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]
Cluster Knowledge and Skills (CTE standards)			0.5	0.5	0.5	0.5	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]
CCTC*	**Code Number**	**KS Statement**	Y	Y	Y	Y	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]
AC 1	AC01	Use vocabulary, symbols, and formulas commonly used in design and construction.	X	X								
AC 2	AC02	Use architecture and construction skills to create and manage a project.	X	X								
AC 3	AC03	Comply with regulations and applicable codes to establish and manage a legal and safe workplace/jobsite.										
AC 4	AC04	Understand the nature and scope of the Architecture &Construction Career Cluster™ and the role architecture and construction play in society and the economy.										
AC 5	AC05	Understand the roles and responsibilities among trades and professions, including labor/management relationships.	X	X								
AC 6	AC06	Read, interpret, and use technical drawings, documents, and specifications to plan a project.										
AC 7	AC07	Evaluate a wide range of career pathway opportunities for success in architecture and construction careers.	X	X								

2019

Skills-to-Course Matrix

[CTE Program of Study Name]

[High School Name]
[Community College Name]
[Date]

Carpentry Focus Area

Instructions: 1) Enter the Program of Study name above. 2) Enter your high school name. 3) Enter the community college name. 4) Enter the date. 5) Click on the cell for Course 1 Name, Course 2 Name, etc., and replace with your POS course names--secondary and first year of post-secondary. 6) Enter school course numbers. 7) Enter NCES code for the course (secondary only). 8) Enter number of credits awarded. 9) Identify those courses that trigger the TSA for this POS. 10) Finally, check those standards that are taught with intent and purpose, and are assessed in each course. Note: The optional Focus Area tabs below are included for those POSs that have a very specific industry fociusare using those skill sets for multiple options in a Progam of Study or if you want to use another set of industry validated standards.

			[Course 1 Name]	[Course 2 Name]	[Course 3 Name]	[Course 4 Name]	[Course 5 Name]	[Course 6 Name]	[Course 7 Name]	[Course 8 Name]	[Course 9 Name]	[Course 10 Name]
			[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]
			[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]
Cluster Knowledge and Skills (CTE standards)			[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]
CCTC*	**Code Number**	**KS Statement**	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]
	ACCR01	Identify building materials, fasteners, adhesives, and their uses.										
	ACCR02	Read plans and elevations.										
	ACCR03	Identify and install floor systems.										
	ACCR04	Indentify and install wall and ceiling framing.										
	ACCR05	Identify and install roof framing and roofing.										
	ACCR06	Install concrete reinforcing materials and forms.										
	ACCR07	Install windows and exterior doors.										
	ACCR08	Complete basic stair layout and construction.										
	ACCR09	Conduct distance measurement and leveling for site layout.										
	ACCR10	Describe properties and testing methods for concrete.										
	ACCR11	Prepare foundations and flatwork.										
	ACCR12	Handle and place concrete.										
	ACCR13	Install exterior finishing.										
	ACCR14	Install thermal and moisture protection.										
	ACCR16	Install interior doors.										
	ACCR17	Install interior trim.										
	ACCR18	Install cabinets.										

2019

Skills-to-Course Matrix

[CTE Program of Study Name]

[High School Name]
[Community College Name]
[Date]

Construction Management Focus Area

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Cluster Knowledge and Skills (CTE standards)			[Course 1 Name]	[Course 2 Name]	[Course 3 Name]	[Course 4 Name]	[Course 5 Name]	[Course 6 Name]	[Course 7 Name]	[Course 8 Name]	[Course 9 Name]	[Course 10 Name]
			[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]
			[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]
			[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]
CCTC*	Code Number	KS Statement	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]
AC-CST 1	ACCS01	Understand contractual relationships with all parties involved in the building process to ensure successful build of a project.										
AC-CST 2	ACCS02	Understand approval procedures to ensure effective flow of information in the construction process.										
AC-CST 3	ACCS03	Understand and implement testing and inspection procedures to ensure successful completion of a construction project.										
AC-CST 4	ACCS04	Understand the purpose of scheduling as it relates to the successful completion of a construction project.										
AC-CST 5	ACCS05	Understand and apply practices and procedures required to maintain jobsite safety.										
AC-CST 6	ACCS06	Manage relationships with internal and external parties to successfully complete construction projects.										
AC-CST 7	ACCS07	Compare and contrast the building systems and components for a given project.										
AC-CST 8	ACCS08	Demonstrate the construction crafts required for each phase of a given project.										
AC-CST 9	ACCS09	Safely use and maintain appropriate tools, machinery, equipment, and resources to accomplish construction project goals.										

2019

Skills-to-Course Matrix

[CTE Program of Study Name]

[High School Name]
[Community College Name]
[Date]

Design/Pre-construction Focus Area

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			[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]
			[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]
Cluster Knowledge and Skills (CTE standards)			[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]
CCTC*	**Code Numbe**	**KS Statement**	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]
AC-DES 1	ACDP01	Justify design solutions through the use of research documentation and analysis of data.										
AC-DES 2	ACDP02	Use effective communication skills and strategies (listening, speaking, reading, writing, and graphic communications) to work with clients and colleagues.										
AC-DES 3	ACDP03	Understand the integral systems that impact the design of buildings and structures.										
AC-DES 4	ACDP04	Apply building codes, laws, and rules in the design and construction of projects.										
AC-DES 5	ACDP05	Identify the diversity of needs, values, and social patterns in project design, including accessibility standards, to appropriately meet client needs.										
AC-DES 6	ACDP06	Apply the techniques and skills of modern drafting, design, engineering, and construction to projects.										
AC-DES 7	ACDP07	Employ appropriate representational media to communicate concepts and design.										
AC-DES 8	ACDP08	Apply principles, conventions, standards, applications, and restrictions pertaining to the selection and use of construction materials, components, and assemblies for project design.										

2019

Skills-to-Course Matrix

[CTE Program of Study Name]

[High School Name]
[Community College Name]
[Date]

Low Voltage Electricity Focus Area

Instructions: 1) Enter the Program of Study name above. 2) Enter your high school name. 3) Enter the community college name. 4) Enter the date. 5) Click on the cell for Course 1 Name, Course 2 Name, etc., and replace with your POS course names--secondary and first year of post-secondary. 6) Enter school course numbers. 7) Enter NCES code for the course (secondary only). 8) Enter number of credits awarded. 9) Identify those courses that trigger the TSA for this POS. 10) Finally, check those standards that are taught with intent and purpose, and are assessed in each course. Note: The optional Focus Area tabs below are included for those POSs that have a very specific industry fociusare using those skill sets for multiple options in a Progam of Study or if you want to use another set of industry validated standards.

			[Course 1 Name]	[Course 2 Name]	[Course 3 Name]	[Course 4 Name]	[Course 5 Name]	[Course 6 Name]	[Course 7 Name]	[Course 8 Name]	[Course 9 Name]	[Course 10 Name]
			[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]
			[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]
Focus Area Knowledge and Skills (CTE standards)			[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]
CCTC*	**Code Number**	**KS Statement**	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]
	ACLV01	Install pathways and spaces for low-voltage electrical systems.										
	ACLV02	Prepare and install low-voltage cabling.										
	ACLV03	Understand semiconductors and integrated circuits.										
	ACLV04	Use test equipment.										
	ACLV05	Understand power quality and grounding.										
	ACLV06	Understand switching devices and timers.										
	ACLV07	Prepare wire and cable terminations.										
	ACLV08	Understand codes and standards related to low-voltage electrical.										
	ACLV09	Use computer applications in low-voltage electrical systems.										
	ACLV10	Conduct maintenance and repair on low-voltage electrical systems.										
	ACLV11	Install rack systems for electronic equipment.										

2019

Skills-to-Course Matrix

[CTE Program of Study Name]

[High School Name]
[Community College Name]
[Date]

Maintenance & Operations Focus Area

Instructions: 1) Enter the Program of Study name above. 2) Enter your high school name. 3) Enter the community college name. 4) Enter the date. 5) Click on the cell for Course 1 Name, Course 2 Name, etc., and replace with your POS course names--secondary and first year of post-secondary. 6) Enter school course numbers. 7) Enter NCES code for the course (secondary only). 8) Enter number of credits awarded. 9) Identify those courses that trigger the TSA for this POS. 10) Finally, check those standards that are taught with intent and purpose, and are assessed in each course. Note: The optional Focus Area tabs below are included for those POSs that have a very specific industry fociusare using those skill sets for multiple options in a Progam of Study or if you want to use another set of industry validated standards.

Focus Area Knowledge and Skills (CTE standards)			[Course 1 Name]	[Course 2 Name]	[Course 3 Name]	[Course 4 Name]	[Course 5 Name]	[Course 6 Name]	[Course 7 Name]	[Course 8 Name]	[Course 9 Name]	[Course 10 Name]
			[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]
			[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]
			[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]
CCTC*	Code Number	KS Statement	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]
AC-MO 1	COMO01	Recognize and employ universal construction signs and symbols to function safely in the workplace.										
AC-MO 2	COMO02	Use troubleshooting procedures when solving a maintenance problem to maintain buildings and structures.										
AC-MO 3	COMO03	Apply construction skills when repairing, restoring, or renovating existing structures.										
AC-MO 4	COMO04	Determine work required to repair or renovate an existing building or structure.										
AC-MO 5	COMO05	Plan and practice preventative maintenance activities to service existing structures.										
AC-MO 6	COMO06	Maintain and inspect building systems to achieve safe and efficient operation of facilities.										

2019

Skills-to-Course Matrix

[CTE Program of Study Name]

[High School Name]
[Community College Name]
[Date]

Masonry Focus Area

Instructions: 1) Enter the Program of Study name above. 2) Enter your high school name. 3) Enter the community college name. 4) Enter the date. 5) Click on the cell for Course 1 Name, Course 2 Name, etc., and replace with your POS course names--secondary and first year of post-secondary. 6) Enter school course numbers. 7) Enter NCES code for the course (secondary only). 8) Enter number of credits awarded. 9) Identify those courses that trigger the TSA for this POS. 10) Finally, check those standards that are taught with intent and purpose, and are assessed in each course. Note: The optional Focus Area tabs below are included for those POSs that have a very specific industry fociusare using those skill sets for multiple options in a Progam of Study or if you want to use another set of industry validated standards.

			[Course 1 Name]	[Course 2 Name]	[Course 3 Name]	[Course 4 Name]	[Course 5 Name]	[Course 6 Name]	[Course 7 Name]	[Course 8 Name]	[Course 9 Name]	[Course 10 Name]
			[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]
			[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]
		Focus Area Knowledge and Skills (CTE standards)	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]
CCTC*	Code Number	KS Statement	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]
	ACMS01	Understand safe use of equipment in elevated masonry work.										
	ACMS02	Perform appropriate construction inspection and quality control.										
	ACMS03	Understand the safe use of equipment and materials in high-rise construction work.										
	ACMS04	Use appropriate masonry tools and equipment.										
	ACMS05	Understand the components of mortar and how to mix those components properly.										
	ACMS06	Understand masonry units and installation techniques.										
	ACMS07	Apply masonry techniques to residential construction.										
	ACMS08	Understand and use appropriate techniques for reinforced masonry.										
	ACMS09	Understand how metal work is used in masonry.										
	ACMS10	Apply advanced masonry laying techniques.										
	ACMS11	Understand the relationships between masonry construction techniques and moisture control.										
	ACMS12	Apply appropriate masonry construction techniques to a variety of materials and conditions.										
	ACMS13	Repair and restore masonry structures.										

2019

Skills-to-Course Matrix

[CTE Program of Study Name]

[High School Name]
[Community College Name]
[Date]

Plumbing Focus Area

Instructions: 1) Enter the Program of Study name above. 2) Enter your high school name. 3) Enter the community college name. 4) Enter the date. 5) Click on the cell for Course 1 Name, Course 2 Name, etc., and replace with your POS course names--secondary and first year of post-secondary. 6) Enter school course numbers. 7) Enter NCES code for the course (secondary only). 8) Enter number of credits awarded. 9) Identify those courses that trigger the TSA for this POS. 10) Finally, check those standards that are taught with intent and purpose, and are assessed in each course. Note: The optional Focus Area tabs below are included for those POSs that have a very specific industry fociusare using those skill sets for multiple options in a Progam of Study or if you want to use another set of industry validated standards.

			[Course 1 Name]	[Course 2 Name]	[Course 3 Name]	[Course 4 Name]	[Course 5 Name]	[Course 6 Name]	[Course 7 Name]	[Course 8 Name]	[Course 9 Name]	[Course 10 Name]
			[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]
			[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]
		Focus Area Knowledge and Skills (CTE standards)	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]
CCTC*	Code Number	KS Statement	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]
	ACPL01	Perform general plumbing practices.										
	ACPL02	Prepare and install building drainage systems.										
	ACPL03	Prepare and install vents.										
	ACPL04	Prepare and install traps.										
	ACPL05	Join pipes and fittings.										
	ACPL06	Install plumbing fixtures.										
	ACPL07	Layout and install water supply lines.										
	ACPL08	Install hot water systems.										
	ACPL09	Perform safety inspections.										
	ACPL10	Conduct plumbing service and repair.										

2019

Skills-to-Course Matrix

[CTE Program of Study Name]

[High School Name]
[Community College Name]
[Date]

Residential Electric Focus Area

Instructions: 1) Enter the Program of Study name above. 2) Enter your high school name. 3) Enter the community college name. 4) Enter the date. 5) Click on the cell for Course 1 Name, Course 2 Name, etc., and replace with your POS course names--secondary and first year of post-secondary. 6) Enter school course numbers. 7) Enter NCES code for the course (secondary only). 8) Enter number of credits awarded. 9) Identify those courses that trigger the TSA for this POS. 10) Finally, check those standards that are taught with intent and purpose, and are assessed in each course. Note: The optional Focus Area tabs below are included for those POSs that have a very specific industry fociusare using those skill sets for multiple options in a Progam of Study or if you want to use another set of industry validated standards.

			[Course 1 Name]	[Course 2 Name]	[Course 3 Name]	[Course 4 Name]	[Course 5 Name]	[Course 6 Name]	[Course 7 Name]	[Course 8 Name]	[Course 9 Name]	[Course 10 Name]
			[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]
			[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]
		Focus Area Knowledge and Skills (CTE standards)	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]
CCTC*	Code Number	KS Statement	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]
	ACRE01	Apply electrical theory to circuits including concepts of alternating current.										
	ACRE02	Use electrical test equipment.										
	ACRE03	Understand how to use the National Electrical Code®										
	ACRE04	Prepare electrical conduit for installation.										
	ACRE05	Indentify and Install fasteners and anchors.										
	ACRE06	Install raceways, boxes, cable trays, and fittings.										
	ACRE07	Install Conductors										
	ACRE08	Read and understand electrical blueprints.										
	ACRE09	Install wiring in switches and enclosures in commercial settings.										
	ACRE10	Install wiring in residential settings.										
	ACRE11	Understand the principles of grounding.										
	ACRE12	Install boxes and fittings.										
	ACRE13	Prepare conductor terminations and splices.										
	ACRE14	Install electrical services.										
	ACRE15	Understand circuit breakers and fuses.										
	ACRE16	Understand contactors and relays.										
	ACRE17	Install electric lighting										
	ACRE18	Calculate loads for branch and feeder circuits.										
	ACRE19	Select appropriate conductors.										
	ACRE20	Determine appropriate overcurrent protection.										
	ACRE21	Understand requirements for raceway, box, and fitting fill.										
	ACRE22	Understand requirements for wiring devices.										
	ACRE23	Understand and inspect distribution equipment.										
	ACRE24	Understand the purpose and function of lamps, ballasts, and their components.										
	ACRE25	Use appropriate wiring methods for hazardous locations.										
	ACRE26	Identify practical lighting requirements.										
	ACRE27	Identify and install heat tracing and freeze protection systems.										
	ACRE28	Complete high voltage terminations and splices.										

2019

Skills-to-Course Matrix

[CTE Program of Study Name]

[High School Name]
[Community College Name]
[Date]

Sheet Metal/HVAC Focus Area

Instructions: 1) Enter the Program of Study name above. 2) Enter your high school name. 3) Enter the community college name. 4) Enter the date. 5) Click on the cell for Course 1 Name, Course 2 Name, etc., and replace with your POS course names--secondary and first year of post-secondary. 6) Enter school course numbers. 7) Enter NCES code for the course (secondary only). 8) Enter number of credits awarded. 9) Identify those courses that trigger the TSA for this POS. 10) Finally, check those standards that are taught with intent and purpose, and are assessed in each course. Note: The optional Focus Area tabs below are included for those POSs that have a very specific industry fociusare using those skill sets for multiple options in a Progam of Study or if you want to use another set of industry validated standards.

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			[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]
			[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]
Focus Area Knowledge and Skills (CTE standards)			[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]
CCTC*	**Code Number**	**KS Statement**	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]
	ACSM01	Understand the safe use of equipment and tools used in sheet metal and HVAC.										
	ACSM02	Perform proper piping practices.										
	ACSM03	Perform soldering and brazing operations.										
	ACSM04	Identify fasteners, hangers, and supports and their use in sheetmetal and HVAC.										
	ACSM06	Understand the fundamental concepts related to heating systems.										
	ACSM07	Understand the fundamental concepts related to air distribution systems.										
	ACSM08	Read and interpret blueprints related to HVAC and sheetmetal projects.										
	ACSM09	Understand fundamental sheet metal planning and layout.										
	ACSM10	Understand principles of sheet metal fabrication.										
	ACSM11	Maintain heating and cooling systems.										
	ACSM12	Understand the relationship between indoor air quality and HVAC.										
	ACSM13	Design heating and cooling systems.										

2019

Skills-to-Course Matrix

[CTE Program of Study Name]

[High School Name]
[Community College Name]
[Date]

Sustainable Building Focus Area

Instructions: 1) Enter the Program of Study name above. 2) Enter your high school name. 3) Enter the community college name. 4) Enter the date. 5) Click on the cell for Course 1 Name, Course 2 Name, etc., and replace with your POS course names--secondary and first year of post-secondary. 6) Enter school course numbers. 7) Enter NCES code for the course (secondary only). 8) Enter number of credits awarded. 9) Identify those courses that trigger the TSA for this POS. 10) Finally, check those standards that are taught with intent and purpose, and are assessed in each course. Note: The optional Focus Area tabs below are included for those POSs that have a very specific industry fociusare using those skill sets for multiple options in a Progam of Study or if you want to use another set of industry validated standards.

			[Course 1 Name]	[Course 2 Name]	[Course 3 Name]	[Course 4 Name]	[Course 5 Name]	[Course 6 Name]	[Course 7 Name]	[Course 8 Name]	[Course 9 Name]	[Course 10 Name]
			[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]	[Course Number]
			[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]	[NCES Code]
Focus Area Knowledge and Skills (CTE standards)			[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]	[# of Credits]
CCTC*	**Code Number**	**KS Statement**	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]	[TSA--Y or N?]
	ACGR01	Understand how fundamental science concepts and strategies are applied through building science.										
	ACGR02	Understand the rationale for sustainability and green building.										
	ACGR03	Explain the issues, concepts, strategies, and practices of sustainable site planning and land use.										
	ACGR04	Identify water-efficiency and management issues, concepts, strategies, and practices associated with green building.										
	ACGR05	Understand how energy is used in buildings and how energy-saving materials, systems, and techniques are utilized in green buildings.										
	ACGR06	Identify indoor environmental quality (IEQ) issues, concepts, strategies and practices associated with green building.										
	ACGR07	Understand how materials selection and use is applied in green building.										
	ACGR08	Identify green building industry tools and resources.										
	ACGR09	Understand how industry accepted practices associated with design, construction and certification impact green building.										