

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

Mountainside High School
Portland Community College
Construction
4/30/2017

Architecture & Construction 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)

CCTC	Code Number	KS Statement	TSA? No	TSA? No	TSA? TBD	TSA? TBD	TSA? Yes	TSA? Yes
AC 1	AC01	Use vocabulary, symbols, and formulas commonly used in design and construction.	X	X	X	X	TBD	TBD
AC 2	AC02	Use architecture and construction skills to create and manage a project.	X	X	X	X	TBD	TBD
AC 3	AC03	Comply with regulations and applicable codes to establish and manage a legal and safe workplace/jobsite.	X				TBD	TBD
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.			X	X	TBD	TBD
AC 5	AC05	Understand the roles and responsibilities among trades and professions, including labor/management relationships.					TBD	TBD
AC 6	AC06	Read, interpret, and use technical drawings, documents, and specifications to plan a project.	X	X	X	X	TBD	TBD
AC 7	AC07	Evaluate a wide range of career pathway opportunities for success in architecture and construction careers.					TBD	TBD

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Carpentry Focus Area

2016

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Focus Area Knowledge and Skills (CTE standards)

CCTC	Code Number	KS Statement	Course 1	Course 2	Course 3	Course 4	Course 5	Course 6
	ACCR01	Identify building materials, fasteners, adhesives, and their uses.	TBD					
	ACCR02	Read plans and elevations.	TBD					
	ACCR03	Identify and install floor systems.	TBD					
	ACCR04	Identify and install wall and ceiling framing.	TBD					
	ACCR05	Identify and install roof framing and roofing.	TBD					
	ACCR06	Install concrete reinforcing materials and forms.	TBD					
	ACCR07	Install windows and exterior doors.	TBD					
	ACCR08	Complete basic stair layout and construction.	TBD					
	ACCR09	Conduct distance measurement and leveling for site layout.	TBD					
	ACCR10	Describe properties and testing methods for concrete.	TBD					
	ACCR11	Prepare foundations and flatwork.	TBD					
	ACCR12	Handle and place concrete.	TBD					
	ACCR13	Install exterior finishing.	TBD					
	ACCR14	Install thermal and moisture protection.	TBD					
	ACCR16	Install interior doors.	TBD					
	ACCR17	Install interior trim.	TBD					
	ACCR18	Install cabinets.	TBD					
			TBD					

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Construction Management Focus Area

2016

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Focus Area Knowledge and Skills (CTE standards)

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

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Design & Pre-Construction Focus Area

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Focus Area Knowledge and Skills (CTE standards)

CCTC	Code Number	KS Statement	Course 1	Course 2	Course 3	Course 4	Course 5	Course 6
AC-DES 1	ACDP01	Justify design solutions through the use of research documentation and analysis of data.	TBD					
AC-DES 2	ACDP02	Use effective communication skills and strategies (listening, speaking, reading, writing, and graphic communications) to work with clients and colleagues.	TBD					
AC-DES 3	ACDP03	Understand the integral systems that impact the design of buildings and structures.	TBD					
AC-DES 4	ACDP04	Apply building codes, laws, and rules in the design and construction of projects.	TBD					
AC-DES 5	ACDP05	Identify the diversity of needs, values, and social patterns in project design, including accessibility standards, to appropriately meet client needs.	TBD					
AC-DES 6	ACDP06	Apply the techniques and skills of modern drafting, design, engineering, and construction to projects.	TBD					
AC-DES 7	ACDP07	Employ appropriate representational media to communicate concepts and design.	TBD					
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.	TBD					

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Sustainable Building Focus Area

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Focus Area Knowledge and Skills (CTE standards)

CCTC	Code Number	KS Statement	Course 1	Course 2	Course 3	Course 4	Course 5	Course 6
			TSA?	TSA?	TSA?	TSA?	TSA?	TSA?
	ACGR01	Understand how fundamental science concepts and strategies are applied through building science.	TBD					
	ACGR02	Understand the rationale for sustainability and green building.	TBD					
	ACGR03	Explain the issues, concepts, strategies, and practices of sustainable site planning and land use.	TBD					
	ACGR04	Identify water-efficiency and management issues, concepts, strategies, and practices associated with green building.	TBD					
	ACGR05	Understand how energy is used in buildings and how energy-saving materials, systems, and techniques are utilized in green buildings.	TBD					
	ACGR06	Identify indoor environmental quality (IEQ) issues, concepts, strategies and practices associated with green building.	TBD					
	ACGR07	Understand how materials selection and use is applied in green building.	TBD					
	ACGR08	Identify green building industry tools and resources.	TBD					
	ACGR09	Understand how industry accepted practices associated with design, construction and certification impact green building.	TBD					