

HS Name:
 Community College Name:
 CTE Program of Study:
 Date:

St. Helens High School
 Portland Community College
 I&E Electronics
 June-11

**Skill Set Crosswalk for Cluster Area--
 Engineering**

<http://www.ode.state.or.us/apps/oss/default.aspx?cla=311&c=951&fa=1049>

Code & #	Standard	PRE-ENGINEERING 1&2	HS-Drafting 1	HS-Drafting 2	CC-DFT 117	CC-ARCH 110	CC-ARCH 126	CC_ARCH 132	CC-ARCH 136
ENP01.01	Use effective communication skills with a variety of audiences.	X							
ENP02.01	Exhibit integrity and professionalism in engineering cluster occupations.	X							
ENP03.01	Use technology such as computers and design software to solve engineering problems.	X					X		X
ENP04.01	Understand and use applied mathematics and science for engineering cluster careers.	X							
ENP05.01	Develop and implement a career plan within the engineering cluster occupations.								
ENP06.01	Use teamwork, critical thinking and problem solving skills to address complex problems in engineering.	X				X			
ENP07.01	Understand the role of engineering in society throughout history and how it is affected by economics, regulations, politics, and corporate culture.	X			x				
ENP08.01	Apply design principles and life-cycle methodology to create products, systems, and processes using appropriate technology.	X							
ENP09.01	Understand the impact personal characteristics, such as creativity, resourcefulness, the ability to visualize and the ability to think abstractly have on engineers and their ability to design.	X			x	X			
ENP10.01	Understand and adhere to safety, health, and environmental standards and regulations.	X	X	X	X	X	X	X	X

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Skill Set Crosswalk for Mechanical CAD/Drafting Focus Area

Code & #	Standard	DRAFTING TECHNOLOGY I	DRAFTING TECHNOLOGY II	DRAFTING TECHNOLOGY ADVANCED	CC-SOLID WORKS FUNDAMENTALS	CC-DRAFTING FUNDAMENTALS	CC-AUTOCAD INVENTOR FUNDAMENTALS	CC- INTERMEDIATE DRAFTING
MNPJ10.02	Interpret engineering documents and control documents.	X	X	X				
MNPJ10.02	Interpret engineering documents and control documents.	X	X	X				X
MNPJ10.03	Create technical sketches using drafting procedures.	X	X	X		X		
MNPJ10.04	Use a CADD system and procedures.	X	X	X	X		X	
MNPJ10.05	Detail projection views/components.	X	X	X				X
MNPJ10.06	Explore mechanical drafting/design concepts and problems.	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				
MNPJ10.09	Depict assemblies of components.	X	X	X				X

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Skill Set Crosswalk for Design/Pre-Construction Focus Area

Code # & Standard

COPA02.01 - Use communication skills and strategies to work effectively with potential clients

COPA03.01 - Employ basic methods of data collection and analysis to provide information for projects.

COPA05.01 - Integrate structural, environmental, safety, building envelopes and building service systems to design and construct buildings and structures.

COPA05.02 - Review traditional project phases and various roles within them to plan for and implement phases within a project

COPA05.03 - Apply the suitable practices of environmental impact to enhance project acceptance and quality.

COPA08.01 - Apply objective construction guidelines for the accommodation of people with varying physical abilities to meet accessibility requirements.

COPA08.02 - Appreciate the diversity of needs, values and social patterns in project design to appropriately meet client needs.

COPA10.01 - Develop technical drawings drafted by hand and computer-generated plans to design structures.

COPA10.02 - Employ appropriate representational media to communicate concepts and design.

COPA10.03 - Employ principles, conventions, standards, applications and restrictions pertaining to the manufacture and use of construction materials, components and assemblies to incorporate into project design.

COPA10.04 - Apply basic organizational, spatial, structural and constructional principles to the design of interior and exterior space so that design plans are effective.

	TECHNICAL DRAFTING I	TECHNICAL DRAFTING II	TECHNICAL DRAFTING ADVANCED	CC ARCH 110	CC ARCH 128	CC_ARCH 132	CC-ARCH 136	CC - ARCH 101	CC - ARCH 111
COPA02.01 - Use communication skills and strategies to work effectively with potential clients			X					X	
COPA03.01 - Employ basic methods of data collection and analysis to provide information for projects.						X		X	X
COPA05.01 - Integrate structural, environmental, safety, building envelopes and building service systems to design and construct buildings and structures.						X		X	X
COPA05.02 - Review traditional project phases and various roles within them to plan for and implement phases within a project				X	X		X	X	X
COPA05.03 - Apply the suitable practices of environmental impact to enhance project acceptance and quality.								X	X
COPA08.01 - Apply objective construction guidelines for the accommodation of people with varying physical abilities to meet accessibility requirements.								X	
COPA08.02 - Appreciate the diversity of needs, values and social patterns in project design to appropriately meet client needs.			X					X	
COPA10.01 - Develop technical drawings drafted by hand and computer-generated plans to design structures.	X	X	X	X	X		X	X	X
COPA10.02 - Employ appropriate representational media to communicate concepts and design.				X	X		X	X	X
COPA10.03 - Employ principles, conventions, standards, applications and restrictions pertaining to the manufacture and use of construction materials, components and assemblies to incorporate into project design.									X
COPA10.04 - Apply basic organizational, spatial, structural and constructional principles to the design of interior and exterior space so that design plans are effective.			X					X	

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COPA10.05 - Read technical drawings and documents to plan a project.	X	X	X	X					X
COPA10.06 - Evaluate business and financial management practices needed in drafting and design industries.						X			
COPA10.07 - Create technical sketches using technical sketching techniques and procedures.	X			X	X		X	X	X
COPA10.08 - Use a CADD system and procedures.	X	X	X		X		X	X	X
COPA10.09 - Detail projection views/components.	X	X	X	X	X		X	X	X
COPA10.10 - Explore architectural drafting and design concepts and problems.	X	X	X	X	X		X	X	X
COPA10.11 - Demonstrate drafting and design concepts as related to architectural design using CADD systems.	X	X	X		X		X	X	X
COPA10.12 - Create drawings of structural sections and details using CADD systems.	X	X	X						X
COPA10.13 - Create pictorial drawings and models.	X	X	X	X	X		X	X	X