**Tualatin High School Portland Community College** Sample Program of Study 5/1/2016

# **Information & Communications Technology -**ICT (I&E) Cluster

### **Skills-to-Course Matrix**

nstructions: 1) Click on Sample High School above and 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 you 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 in each course. (You only need to use the optional Focus Area tabs if you are using those skill sets for multiple options in a Progam of Study or if you want to use another set of industry validated standards.)

	Cluster Knowledge and Skills (CTE standards)	Computer	cience TSA? Introtoff	igineeri □ Game Desien	Tsa? Web Design	∆ Zekz	√ek3.	 <8 <sup>6</sup> 83.	\chi_2.	√ekg.	<5 <sup>62</sup> . □	□ <8 <sup>8</sup> 2.
Code Numbe												
ITCi01.01	Use oral and written communication in creating, expressing, and interpreting information and ideas within the information and communication technologies cluster occupations.	V	<b>☑</b>	☑	☑							
ITCi02.01	Exhibit ethical and professional behavior.	V	v	V	<b>V</b>							
ITCi03.01	Use information technology tools specific to the information and communication technologies cluster to access, manage, integrate, and create information.	V	V	Ø	Ø							
ITCi04.01	Explore, plan, and effectively manage careers within the information and communication technologies cluster.	V	V	Ø	Ø							
ITCi05.01	Perform problem solving and troubleshooting for information and communication cluster.	v	V	V	Ø							
ITCi06.01	Demonstrate an understanding of systems within the information and communication technologies environment.	Ø	V	V	v							
ITCi07.01	Use knowledge of design, operation, and maintenance of technological systems critical to the information and communication technologies cluster.	V	v	Ø	Ø							
ITCi08.01	Understand and adhere to safety, health, and environmental standards and regulations.	V	<b>☑</b>	v	<b>☑</b>							
ITCi09.01	Demonstrate ability to develop, implement, and maintain cybersecurity.	v	V	V	Ø							
ITCi10.01	Demonstrate ability to manage projects.	V	V	Ø	Ø							
ITCi11.01	Demonstrate ability to manage, monitor, and evaluate work processes and procedures.	V	v	☑	Ø							
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# **Database Administration (I&E) Focus Area**

<u>Fc</u>	ocus Area Knowledge and Skills (CTE standards)	Intro to Compute	<b>√</b> e8 <sup>6</sup>	Intro to Engineeri	75A <sup>3</sup> Introto Garning	TSA? Web Design	rşa <sup>?</sup>	course 5 TSA? Course 6	rsa? □
Code Number	KS Statement	]							
A Statement Cod	Production Description	<u></u> ✓		<b>V</b>					
ICPAi01.01	Analyze and design database.	☑							
ICPAi02.01	Develop and implement database.	<b>V</b>		<b>V</b>					
ICPAi03.01	Perform administration and maintenance of database.	☑ ☑							
ICPAi04.01	Provide data assurance for database.	<b>V</b>		<b>V</b>					
ICPAi05.01	Provide client and user support.	V		<b>V</b>					
	Perform database testing.								

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# **Enterprise System Analysis & Integration Focus Area**

### **Skills-to-Course Matrix**

<u> </u>	ocus Area Knowledge and Skills (CTE standards)	course 1	rsa course 2 □	TSA COUISE 3	TSA. Conse a	rsar course's	rsa. Contee e	<b>√2</b> 8.
Code Number	KS Statement							
ICPCi01.01	Define customer requirements.							
ICPCi02.01	Determine solutions for new and existing systems.							
ICPCi03.01	Provide strategic direction for systems configuration and interoperability.							
ICPCi04.01	Provide high-level technology management.							
ICPCi05.01	Implement systems.							
ICPCi06.01	Manage systems quality assurance and testing.							

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### **Interactive Media Focus Area**

### **Skills-to-Course Matrix**

	Focus Area Knowledge and Skills (CTE standards)	couse 1	tsa <sup>3</sup> □ Course 2	75A <sup>3</sup> □ COUISE 3	tsa <sup>3</sup> □ course a	75A <sup>3</sup> □ Course 5	15gg² Course 6	<b>5a</b> ?
Code Numb	er KS Statement							
VPPAi01.01	Gather and analyze interactive media customer requirements.							
VPPAi01.02	Define scope of interactive media work in written form.							
VPPAi01.03	Create interactive media product specifications.							
VPPAi01.04	Demonstrate and apply knowledge of project management.							
VPPAi01.05	Demonstrate the effective use of tools for interactive media production, development and project management.							
VPPAi01.06	Demonstrate and apply knowledge of web programming and hosting.							
VPPAi01.07	Create/implement interactive media product.							
VPPAi01.08	Test interactive media product.							
VPPAi01.09	Deliver a quality interactive media product.							
VPPAi01.10	Perform maintenance and customer support functions for interactive media products.							

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# **Network Design & Administration Focus Area**

### **Skills-to-Course Matrix**

	Focus Area Knowledge and Skills (CTE standards)	Course 1	TSA? COUISE 2	tsa³ course³	rsa³ course a	tsa³ course's	tsa? □ course 6	<b>15</b> 123.
Code Numbe	er KS Statement							
ICPDi01.01	Perform analysis of customer requirements.							
ICPDi02.01	Design network.							
ICPDi03.01	Configure and deploy network.							
ICPDi04.01	Perform testing on network.							
ICPDi05.01	Manage network.							
ICPDi06.01	Maintain network and manage growth.							
ICPDi07.01	Perform security administration.							

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# **Programming & Software Engineering Focus Area**

### **Skills-to-Course Matrix**

#### Focus Area Knowledge and Skills (CTE standards)

<b>Code Number</b>	KS Statement
ICPEi01.01	Perform analysis of customer requirements.
ICPEi02.01	Develop structure.
ICPEi03.01	Design and develop program.
ICPEi04.01	Implement program.
ICPEi05.01	Test and validate program.
ICPEi06.01	Release product.

are taught wit	th intent and purpose					
Intro to Computer	□ Intro to Engineer	15A? Intro to Garning	15h <sup>2</sup> Neb Desieli	TSA? COUISE'S	TSA <sup>3</sup> Course 6	Têkî.
□			<b>V</b>			
V	V	v	V			
V	V	v	V			
V	V	V	V			
V	V	v	V			
v	V	v	V			

Date:

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# **Technical Support Focus Area**

### **Skills-to-Course Matrix**

### Focus Area Knowledge and Skills (CTE standards)

Code Number	KS Statement	[
ICPFi01.01	Perform troubleshooting.	[
ICPFi02.01	Provide facilitation and customer service.	[
ICPFi03.01	Perform hardware and software installation, configuration, upgrades, and network support.	[
ICPFi04.01	Perform system operations, monitoring, and maintenance.	[

I Technician	75A? Network Adminis	75A <sup>3</sup> Netwon Security	15A <sup>3</sup> Datahase Manash	TSA? Operating System	rsa? Mobile Devices	rsa? notife Devices	<b>√</b> 5Å?
			_ □ ☑				
V	v	v	V	v	v	V	
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•	V	v	Ø	v	V	V	

Sample High School
Sample Community College
Sample Program of Study
6/30/2012

# **Technical Writing Focus Area**

### **Skills-to-Course Matrix**

	Focus Area Knowledge and Skills (CTE standards)	course 2	TSA Course 2	TSA Course 3	TSA Course A	rsh.	Tek Contee 6	
Code Numb	er KS Statement	□						
ICPGi01.01	Analyze project requirements.							
ICPGi02.01	Perform research.							
ICPGi03.01	Design the document.							
ICPGi04.01	Develop and write the document.							
ICPGi05.01	Publish and package the document.							

Date:

Sample High School
Sample Community College
Sample Program of Study
6/30/2012

### **Telecommunications Focus Area**

### **Skills-to-Course Matrix**

<u>F</u>	ocus Area Knowledge and Skills (CTE standards)	course 1	15A <sup>2</sup> Course 2	rsa <sup>3</sup> □ course <sup>3</sup>	TSA? □ COUISEA	rsa?	TSA? Course 6	√2k <sup>2</sup> ,
Code Number	KS Statement							
CSPC01.01	Demonstrate the use of industry-specific terminology, tools and test equipment related to telecommunications.							
CSPC01.02	Describe the characteristics of analog and digital technologies applications for telecommunications.							
CSPC01.03	Demonstrate installation techniques and processes utilizing telecommunication tools and materials.							
CSPC01.04	Analyze schematics, diagrams, and blueprints using appropriate terms, vocabulary and industry-specific codes and regulations.							
CSPC01.05	Apply decision-making and problem-solving techniques to repair and replacement procedures for telecommunications industry.							
CSPC01.06	Apply knowledge of telecommunications to provide service and solve problems for customers.							

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# **Web Development & Administration Focus Area**

### **Skills-to-Course Matrix**

Focus Area Knowledge and Skills (CTE standards)

<b>Code Number</b>	KS Statement	
ICPHi01.01	Understand and perform technical analysis.	]
ICPHi02.01	Understand and perform web programming.	0
ICPHi03.01	Develop, deliver and manage web content.	1
ICPHi04.01	Implement and maintain site and applications.	1
ICPHi05.01	Manage web environment.	1
ICPHi06.01	Manage enterprise-wide web activities.	1
ICPHi07.01	Perform testing and quality assurance.	1
ICPHi08.01	Develop and implement web database.	
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Introto	Con TSA IntrotoEnte	TSA IntrotoGa	TSA Web Desiles	TSA COUTSES	TSA Course 6	
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