Skills-to-Course Matrix

Computer Technology

Century High School
Portland Community College
10/17/2019

Information & Communications Technology 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 T
purpo
include
multi
stand

the TSA for this POS. 10) Finally, check those standards that are <u>taught with intent and purpose</u> , and are <u>assessed</u> 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.			Programming 1	Programming 1	Programming 2	Programming 2	AP Computer Science	Med Design 1	Web Design	Applied web Design	Applied Web Design	Computer Came Des	Game Design 2	Electronic Technolog	Robotics 1	Programming 3	Research & Develop	Web Design 2	net Design 2
			1015211/1015212	101521x	1015221/101522P	101522x		1020111/1020112	102013x	1020121/ 1020122	102012x	102050x	102051x	171021x	210091x	1015231	032120X	102014x	1020141/1020142
			10152	10152	10152	10152	10157	10201	10201	10201	10201	10205	10205	17106	21009	10152	3212	10201	10201
	T	Cluster Knowledge and Skills (CTE standards)	1	0.5	1	0.5	1	1	0.5	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1
ССТС*	Code Numb		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	<u>Y</u>	Y
IT 01	IT01	Demonstrate effective professional communication skills and practices that enable positive customer relationships.															х		
IT 02	IT02	Use product or service design processes and guidelines to produce a quality information technology (IT) product or service.																	
IT 03	IT03	Demonstrate the use of cross-functional teams in achieving IT project goals.																	
IT 04	IT04	Demonstrate positive cyber citizenry by applying industry accepted ethical practices and behaviors.					х			x	X		х				х	х	х
IT 05	IT05	Explain the implications of IT on business development.																	
IT 06	IT06	Describe trends in emerging and evolving computer technologies and their influence on IT practices.					x												
IT 07	IT07	Perform standard computer backup and restore procedures to protect IT information.																	
IT 08	IT08	Recognize and analyze potential IT security threats to develop and maintain security requirements.																	
IT 9	IT09	Describe quality assurance practices and methods employed in producing and providing quality IT products and services.																	
IT 10	IT10	Describe the use of computer forensics to prevent and solve information technology crimes and security breaches.																	
IT 11	IT11	Demonstrate knowledge of the hardware components associated with information systems.																	
IT 12	IT12	Compare key functions and applications of software and determine maintenance strategies for computer systems.																	

Skills-to-Course Matrix

Computer Technology

Century High School
Portland Community College 10/17/2019

CCTC* Code Number

ITSS02

ITSS03

ITSS04

ITSS05

ITSS06

ITSS08

IFPC09

IT-SUP 01

IT-SUP 02

IT-SUP 03

IT-SUP 04

IT-SUP 05

IT-SUP 06

IT-SUP 07

IT-SUP 08

IT-SUP 09

Information Support Services Focus Area

<u>Instructions</u>: 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)

ITSS01 Provide technology support to maintain service.

system operation.

ught with intent and purpose, and are assessed in each course. ocus Area tabs below are included for those POSs that have a fociusare using those skill sets for multiple options in a Progam at to use another set of industry validated standards.	Programming 1	Programming 1	Programming 2	Programming 2	AP Computer 50	Web Design 1	web Design 1	Applied Web Des	Applied Web Des	Computer Game	Game Design 2	Electronic Techn	Robotics 1	Programming 3	Research & Deve	Web Design 2	Web Design 2
	1015211/1015212	101521x	1015221/101522P	101522x	1015701/1015702	1020111/1020112	102013x	1020121/ 1020122	102012x	102050x	102051x	171021x	210091x	1015231	032120X	102014x	1020141/1020142
	10152	10152	10152	10152	10157	10201	10201	10201	10201	10205	10205	17106	21009	10152	3212	10201	10201
Area Knowledge and Skills (CTE standards)	1	0.5	1	0.5	1	1	0.5	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1
nber KS Statement	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ
Provide technology support to maintain service.															Х		
Manage operating systems and software applications, including maintenance of upgrades, patches and service packs.																	
Apply appropriate troubleshooting techniques in resolving computer hardware, software and configuration problems.												x	x				
Perform installation, configuration and maintenance of operating systems.																	
Demonstrate the use of networking concepts to develop a network.																	
Evaluate the effectiveness of an information system.																	
Employ system installation and maintenance skills to set-up and maintain an information system.																	
Employ system administration and control skills to monitor the performance of an information system.																	
Employ technical writing and documentation skills in support of an information system.																	
Apply quality assurance processes to maximize information system operation.																	

Skills-to-Course Matrix

Computer Technology

Century High School Portland Community College 10/17/2019

CCTC* Code Number

IT- NET 1

IT-NET 2

IT-NET 5

ITNW01

ITNW02

Network Systems 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)

IT-NET 4 ITNW04 Perform network system installation and configuration.

specifications (e.g., IEEE, power, security).

ITNW03 Design a network system using technologies, tools and standards.

cus foci	Area tabs below are included for those POSs that have a usare using those skill sets for multiple options in a Progam use another set of industry validated standards.	Programming	Programming	Programming	Programming	AP COMputer	Web Design 1	Web Design 1	Applied Web L	Applied Web L	Computer Can	Game Design	Electronic Tec	Robotics 1	Programming	Research & De	Med Design?	WebDesign	
		1015211/1015212	101521x	1015221/101522P	101522x	1015701/1015702	1020111/1020112	102013x	1020121/ 1020122	102012x	102050x	102051x	171021x	210091x	1015231	032120X	102014x	1020141/1020142	
		10152	10152	10152	10152	10157	10201	10201	10201	10201	10205	10205	17106	21009	10152	3212	10201	10201	
re	a Knowledge and Skills (CTE standards)	1	0.5	1	0.5	1	1	0.5	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1	
ber	KS Statement	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	
1	Analyze customer or organizational network system needs and requirements.															х			
	Analyze wired and wireless network systems to determine if they meet specifications (e.g., IEEE, power, security).																		
3	Design a network system using technologies, tools and standards.																		
1	Perform network system installation and configuration.											Х				Х	Х	X	
5	Perform network administration, monitoring and support to maintain a																		

Skills-to-Course Matrix

Computer Technology Century High School
Portland Community College

CCTC* Code Number

IT-PRG 4 ITPG04

ITPG03

IT-PRG 2

10/17/2019 **Programming & Software Development 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.

applications.

IT-PRG O5

ITPG05

ITPG06

ITPG06

ITPG07

ITPG07

ITPG08

ITPG

IT-PRG 9 ITPG10 Perform software maintenance and customer support functions.

IT-PRG 1 ITPG10 Design, create and maintain a database.

IT-PRG 1 ITPG01 Analyze customer software needs and requirements.

d. 9) that a rea ta nose	umbers. 7) Enter NCES code for the course (secondary only). 8) Enter number Identify those courses that trigger the TSA for this POS. 10) Finally, check are taught with intent and purpose, and are assessed in each course. Note: The abs below are included for those POSs that have a very specific industry skill sets for multiple options in a Progam of Study or if you want to use another d standards.	Programming 1	Programming 1	Programming 2	Programming 2	AP COMPUTER Science	web Design	web Design	Applied Web Design	Applied web Design	Computer Game Design	Game Design 2	Electronic Technology	and Robotics 1	Programming 3	_ Research & Developmen	web Design 2	web Design 2	
		1015211	1015212	1015221	101522P	1015701/1015702	1020111/1020112	102011x	1020121	1020122	102050x	102051x	171021x	210091x	1015231	032120X	102014x	1020141/1020142	
		10152	10152	10152	10152	10157	10201	10201	10201	10201	10205	10205	17106	21009	10152	3212	10201	10201	
<u> </u>	ocus Area Knowledge and Skills (CTE standards)	0.5	0.5	0.5	0.5	1	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
umbei	KS Statement	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	
301	Analyze customer software needs and requirements.														Х	Х			
02	Demonstrate the use of industry standard strategies and project planning to meet customer specifications.															x			
603	Analyze system and software requirements to ensure maximum operating efficiency.																		
604	Demonstrate the effective use of software development tools to develop software applications.	(x	х	х		x	X	х	Х	х	х	x	х	Х	х	х	x	
305	Apply an appropriate software development process to design a software application.			х	х	Х			х	Х		х			Х	х			
606	Program a computer application using the appropriate programming language.	(x	Х	х		x	X	х	Х	x	х	х	x	Х	х	x	x	
607	Demonstrate software testing procedures to ensure quality products.	(Х	Х	Х		X	X	Х	Х					Х	Х	Х	Х	
808	Perform quality assurance tasks as part of the software development cycle.															Х			
909	Perform software maintenance and customer support functions.																		

Skills-to-Course Matrix

Computer Technology Century High School
Portland Community College
10/17/2019

Web & Digital Communications 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 cod Identify tho	e for the courses that	of post-secondary. 6) Enter school course numbers. 7) Enter the (secondary only). 8) Enter number of credits awarded. 9) at trigger the TSA for this POS. 10) Finally, check those with intent and purpose, and are assessed in each course.	ر می	.s [\]	.og√	.ng ²	er Science	er Science	, ^	^	b Design	o Design	came Desi	gn ¹	Technolog	<i>y</i> ^		Development		v <u>v</u>			
Note: The specific inc	optional Focus lustry fociusare	Area tabs below are included for those POSs that have a very using those skill sets for multiple options in a Progam of e another set of industry validated standards.	Programmin	Programmin	Programmin	Programmi	AP COMPUTE	A.P. COMPUTE	Mep Design.	Web Design.	Applied We	Applied We	Computer	Garrie Desily	Electronic '	Robotics 1	Programmi	- Research &	Man Design				
			1015211/1015212	101521x	1015221/101522P	101522x	1015701	1015702	1020111	1020112	1020121	1020122	102050x	102051x	171021x	210091x	1015231	032120X	102014x	020141/1020142			
			10152	10152	10152	10152	10157	10157	10201	10201	10201	10201	10205	10205	17106	21009	10152	3212	10201	10201			
	Focus Are	ea Knowledge and Skills (CTE standards)	1	0.5	1	0.5	1	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5			
CCTC*	Code Number	KS Statement	Υ	Υ	Y	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Y	Υ			
IT-WD 1	ICXHi01	Analyze customer requirements to design and develop a Web or digital communication product.									X	X						x					
IT-WD 2	ICXHi02	Apply the design and development process to produce user- focused Web and digital communications solutions.							х	x	х	X					х	x	х	x			
IT-WD 3	ICXHi03	Write product specifications that define the scope of work aligned to customer requirements.									х	Х					х	х					
IT - WD 4	ICXH04	Demonstrate the effective use of tools for digital communication production, development and project management.	x	x	x	x	x	x	x	x	x	x	x	x	x	х	x	x	х	x			
IT - WD 5	ICXHi05	Develop, administer and maintain Web applications.							Х	Х	Х	Х						Х	Х	Х			
IT-WD 6	ICXHi06	Design, create and publish a digital communication product based on customer needs									X	x						Х					
IT-WD 7	ICXHi07	Evaluate the functionality of a digital communication product using industry accepted techniques and metrics.																x					
IT-WD 8	ICXHi08	Implement quality assurance processes to deliver quality digital communication products and services																х					
IT-WD 9	ICXHi09	Perform maintenance and customer support functions for digital communication products.																					
IT-WD 10	ICXHi10	Comply with intellectual property laws, copyright laws and ethical			x	x	x	×	x	x	x	x	x	×			x	x	x	×			