Information & Communications Technology Cluster

2016

Skills-to-Course Matrix

Cluster Knowledge and Skills (CTE standards)

CCTC	Code Number	KS Statement	CIS 120 TSA?	CIS 121 TSA?	CIS 122 TSA?	CIS 140M TSA?	CIS 133X TSA?
IT 01	IT01	Demonstrate effective professional communication skills and practices that enable positive customer relationships.	X	X	X	X	X
IT 02	IT02	Use product or service design processes and guidelines to produce a quality information technology (IT) product or service.	X	X	X	X	X
IT 03	IT03	Demonstrate the use of cross-functional teams in achieving IT project goals.		X	X	X	X
IT 04	IT04	Demonstrate positive cyber citizenry by applying industry accepted ethical practices and behaviors.	X	X	X	X	X
IT 05	IT05	Explain the implications of IT on business development.	X	X	X	X	X
IT 06	IT06	Describe trends in emerging and evolving computer technologies and their influence on IT practices.	X	X	X	X	X
IT 07	IT07	Perform standard computer backup and restore procedures to protect IT information.	X	X	X	X	X
IT 08	IT08	Recognize and analyze potential IT security threats to develop and maintain security requirements.					X
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.	X	X	X	X	
IT 11	IT11	Demonstrate knowledge of the hardware components associated with information systems.	X	X	X	X	X
IT 12	IT12	Compare key functions and applications of software and determine maintenance strategies for computer systems.	X	X	X	X	X

	High School Name:	**Health and Science High School**
	Community College Name:	**Portland Community College**
	CTE Program of Study Name:	**Computer Information Systems**
	Date:	**4/1/2017**

Information Support & Services Focus Area

2017

Skills-to-Course Matrix

Focus Area Knowledge and Skills (CTE standards)

CCTC	Code Number	KS Statement	CIS 120 TSA?	CIS 121 TSA?	CIS 122 TSA?	CIS 140M TSA?	CIS 179 TSA?	CIS 145 TSA?	CIS 225 TSA?
IT-SUP 01	ITSS01	Provide technology support to maintain service.	X	X	X	X	X	X	X
IT-SUP 02	ITSS02	Manage operating systems and software applications, including maintenance of upgrades, patches and service packs.							
IT-SUP 03	ITSS03	Apply appropriate troubleshooting techniques in resolving computer hardware, software and configuration problems.				X		X	X
IT-SUP 04	ITSS04	Perform installation, configuration and maintenance of operating systems.				X		X	X
IT-SUP 05	ITSS05	Demonstrate the use of networking concepts to develop a network.							
IT-SUP 06	ITSS06	Evaluate the effectiveness of an information system.							
IT-SUP 07	ITSS07	Employ system installation and maintenance skills to set-up and maintain an information system.				X		X	X
IT-SUP 08	ITSS08	Employ system administration and control skills to monitor the performance of an information system.							
IT-SUP 09	IFPC09	Employ technical writing and documentation skills in support of an information system.							
IT-SUP 10	IFPC10	Apply quality assurance processes to maximize information system operation.				X			X

High School Name:

Community College Name:	**Portland Community College**
CTE Program of Study Name:	**Computer Information Systems**
Date:	**4/1/2017**

2017

Network Systems Focus Area

Skills-to-Course Matrix

Focus Area Knowledge and Skills (CTE standards)

CCTC	Code Number	KS Statement	CIS 120 TSA?	CIS 121 TSA?	CIS 140M TSA?	CIS 140U TSA?	CIS 179 TSA?	CIS 240M TSA?	CIS 133X TSA?
IT- NET 1	ITNW01	Analyze customer or organizational network system needs and requirements.		X	X	X		X	X
IT-NET 2	ITNW02	Analyze wired and wireless network systems to determine if they meet specifications (e.g., IEEE, power, security).			X	X	X	X	X
IT-NET 3	ITNW03	Design a network system using technologies, tools and standards.	X		X	X	X	X	X
IT-NET 4	ITNW04	Perform network system installation and configuration.				X	X	X	X
IT-NET 5	ITNW05	Perform network administration, monitoring and support to maintain a network system.						X	X

High School Name:

Community College Name: Portland Community College
CTE Program of Study Name: Computer Information Systems
Date: 4/1/2017

Programming & Software Development Focus Area

2017

Skills-to-Course Matrix

Focus Area Knowledge and Skills (CTE standards)

CCTC	Code Number	KS Statement	CIS 120 TSA?	CIS 121 TSA?	CIS 122 TSA?	CIS 135W TSA?	CIS 133B TSA?
IT-PRG 1	ITPG01	Analyze customer software needs and requirements.	X	X			
IT-PRG 2	ICXE02	Demonstrate the use of industry standard strategies and project planning to meet customer specifications.				X	
IT-PRG 03	ITPG03	Analyze system and software requirements to ensure maximum operating efficiency.				X	X
IT-PRG 4	ITPG04	Demonstrate the effective use of software development tools to develop software applications.				X	X
IT-PRG 05	ITPG05	Apply an appropriate software development process to design a software application.				X	X
IT-PRG 06	ITPG06	Program a computer application using the appropriate programming language.			X	X	X
IT-PRG 7	ITPG07	Demonstrate software testing procedures to ensure quality products.				X	X
IT-PRG 8	ITPG08	Perform quality assurance tasks as part of the software development cycle.			X	X	X
IT-PRG 9	ITPG09	Perform software maintenance and customer support functions.	X	X		X	X
IT-PRG 10	ITPG10	Design, create and maintain a database.	X	X			X

High School Name:

Community College Name: **Portland Community College**

CTE Program of Study Name: **Computer Information Systems**

Date: **4/1/2017**

Web & Digital Communications Focus Area

2017

Skills-to-Course Matrix

Focus Area Knowledge and Skills (CTE standards)

CCTC	Code Number	KS Statement	CIS 120 TSA?	CIS 121 TSA?	CIS 122 TSA?	CIS 140M TSA?	CIS 133W TSA?	CIS 215 TSA?	CIS 135M TSA?
IT-WD 1	ICXHi01	Analyze customer requirements to design and develop a Web or digital communication product.	X	X	X		X	X	X
IT-WD 2	ICXHi02	Apply the design and development process to produce user-focused Web and digital communications solutions.	X	X			X		X
IT-WD 3	ICXHi03	Write product specifications that define the scope of work aligned to customer requirements.	X				X		X
IT - WD 4	ICXH04	Demonstrate the effective use of tools for digital communication production, development and project management.					X	X	X
IT - WD 5	ICXHi05	Develop, administer and maintain Web applications.					X		
IT-WD 6	ICXHi06	Design, create and publish a digital communication product based on customer needs					X	X	X
IT-WD 7	ICXHi07	Evaluate the functionality of a digital communication product using industry accepted techniques and metrics.					X	X	X
IT-WD 8	ICXHi08	Implement quality assurance processes to deliver quality digital communication products and services	X	X	X		X	X	X
IT-WD 9	ICXHi09	Perform maintenance and customer support functions for digital communication products.					X	X	X
IT-WD 10	ICXHi10	Comply with intellectual property laws, copyright laws and ethical practices when creating Web/digital communications.	X	X	X		X	X	X