Computer Science

Mountainside High School Portland Community College Sep-19

CCTC* Code Number

IT01

IT02

IT03

IT05

IT06

IT07

IT08

IT09

IT10

IT11

IT12

IT 01

IT 02

IT 03

IT 04

IT 05

IT 06

IT 07

IT 08

IT 9

IT 10

Information & Communications Technology Cluster

<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 <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.

Demonstrate knowledge of the hardware components associated with

Compare key functions and applications of software and determine

) E 8) 10 in av	nter school course numbers. 7) Enter NCES code for the course Enter number of credits awarded. 9) Identify those courses that trigger the 1) Finally, check those standards that are taught with intent and purpose, each course. Note: The optional Focus Area tabs below are included for e a very specific industry fociusare using those skill sets for multiple of Study or if you want to use another set of industry validated standards.	Intro Information Tech	Web Design?	web Design 2	Computer Game Design	Computer Came Desi	A4591	Java Programming	Robotics 1	20botics2	Computer Science Design
		A399Q	A431X	A432X	A445X	A446X	A4591	A4592	A562X	A563X	A485X
		10003	10201	10201	10160	10160	10155	10155	21009	21009	10155
(Cluster Knowledge and Skills (CTE standards)	0.25	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
er	KS Statement	N	N	N	N	N	Υ	Υ	N	N	N
	Demonstrate effective professional communication skills and practices that enable positive customer relationships.		у	у	у	у	У	у	у	у	у
	Use product or service design processes and guidelines to produce a quality information technology (IT) product or service.		у	У	у	у	у	у	у	У	у
	Demonstrate the use of cross-functional teams in achieving IT project goals.				У	у					у
	Demonstrate positive cyber citizenry by applying industry accepted ethical practices and behaviors.	у	у	У	У	у	у	у	у	у	у
	Explain the implications of IT on business development.				у	у					
	Describe trends in emerging and evolving computer technologies and their influence on IT practices.										
	Perform standard computer backup and restore procedures to protect IT information.										
	Recognize and analyze potential IT security threats to develop and maintain security requirements.										
	Describe quality assurance practices and methods employed in producing and	У	У	у	у	У	У	у	У	у	у
	Describe the use of computer forensics to prevent and solve information										

Computer Science

Mountainside High School Portland Community College Mar-19

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

IT-SUP 10

Information Support Services 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 secondary and first year o Identify those courses that standards that are taught Note: The optional Focus very specific industry focion of Study or if you want to use

se ry ode ho ls t e c	1 Name, Cou and first year e for the cours se courses th that are <u>taugh</u> optional Focus ic industry foc	rse 2 Name, etc., and replace with your POS course names-of post-secondary. 6) Enter school course numbers. 7) Enter se (secondary only). 8) Enter number of credits awarded. 9) at trigger the TSA for this POS. 10) Finally, check those twith intent and purpose, and are assessed in each course. So Area tabs below are included for those POSs that have a situsare using those skill sets for multiple options in a Progam ouse another set of industry validated standards.	Intro Infornation Tech	web Design 1	web Design 2	Computer Game Desi	gn' Computer Came Desig	Java Programming	Java Programming	592 A562X 55 21009 5 0.5	Roboticsi	Computer science Design	•
			A399Q	A431X	A432X	A445X	A446X	A4591	A4592	<u> </u>	A563X	A485X	
			10003	10201	10201	10160	10160	10155	10155	21009	21009	10155	
	Focus Are	a Knowledge and Skills (CTE standards)	0.25	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
	Code Number	KS Statement	N	N	N	N	N	N	Υ	N	N	N	
)1	ITSS01	Provide technology support to maintain service.											
)2	ITSS02	Manage operating systems and software applications, including maintenance of upgrades, patches and service packs.											
)3	ITSS03	Apply appropriate troubleshooting techniques in resolving computer hardware, software and configuration problems.											
)4	ITSS04	Perform installation, configuration and maintenance of operating systems.											
)5	ITSS05	Demonstrate the use of networking concepts to develop a network.											
)6	ITSS06	Evaluate the effectiveness of an information system.											
)7	ITSS07	Employ system installation and maintenance skills to set-up and maintain an information system.											
8	ITSS08	Employ system administration and control skills to monitor the performance of an information system.											
)9	IFPC09	Employ technical writing and documentation skills in support of an											
10	IFPC10	Apply quality assurance processes to maximize information system											

Computer Science

Mountainside High School Portland Community College Mar-19

CCTC*

IT- NET 1

IT-NET 2

IT-NET 3

IT-NET 4

IT-NET 5

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.

ry a hoa ls t e c cifi	and first year of the course se courses that hat are taught optional Focus ic industry foci	se 2 Name, etc., and replace with your POS course names- of post-secondary. 6) Enter school course numbers. 7) Enter e (secondary only). 8) Enter number of credits awarded. 9) t trigger the TSA for this POS. 10) Finally, check those with intent and purpose, and are assessed in each course. 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.	Intro Information Tech	web Design 1	Web Design 2	Computer Game Design	on Computer Game Design	Java Programming	Java Programming	Robotics 1	20botics2	Computer science Design	ç
		·	A399Q	A431X	A432X	A445X	A446X	A4591	A4592	A562X	A563X	A485X	
			10003	10201	10201	10160	10160	10155	10155	21009	21009	10155	
	Focus Area	Knowledge and Skills (CTE standards)	0.25	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
	Code Number	KS Statement	N	N	N	N	N	N	Y	N	N	N	
1	ITNW01	Analyze customer or organizational network system needs and requirements.											
2	ITNW02	Analyze wired and wireless network systems to determine if they meet specifications (e.g., IEEE, power, security).											
3	ITNW03	Design a network system using technologies, tools and standards.											
4	ITNW04	Perform network system installation and configuration.											
5	ITNW05	Perform network administration, monitoring and support to maintain a network system.											

Computer Science

CCTC* Code Number

ICXE02

ITPG03

ITPG04

ITPG05

ITPG06

ITPG08

ITPG09

ITPG10

IT-PRG 7 ITPG07

IT-PRG 1

IT-PRG 2

IT-PRG

03

IT-PRG 4

IT-PRG

IT-PRG

IT-PRG 8

IT-PRG 9

Mountainside High School Portland Community College Sep-19

Programming & Software Development 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 Enter school course numbers. 7) Enter NCES code for the course (secondary only). 8) Enter numbers. 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: 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 anoth set of industry validated standards.

ITPG01 Analyze customer software needs and requirements.

Design, create and maintain a database.

Perform software maintenance and customer support functions.

ge nu 9) a ta	e name. 4) Enter the date. 5) Click on the cell for Course 1 Name, Course 2 ce with your POS course namessecondary and first year of post-secondary. 6) cumbers. 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 labs 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.	somation Tech	web Design ?	web Design 2	Computer Game Desi	Computer Game Design	Java Programming	Java Programming	Robotics 1	Robotics2	Computer Science Des	jgn
		A399Q	A431X	A432X	A445X	A446X	A4591	A4592	A562X	A563X	A485X	
	· · · · · · · · · · · · · · · · · · ·	10003	10201	10201	10160	10160	10155	10155	21009	21009	10155	
Fc	ocus Area Knowledge and Skills (CTE standards)	0.25	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
er	KS Statement	N	N	N	N	N	Υ	Y	N	N	N	1
	Analyze customer software needs and requirements.		у	у	У	У	у	у	у	У	у	1
	Demonstrate the use of industry standard strategies and project planning to meet customer specifications.		у	у	у	у	у	у	у	у	У	
	Analyze system and software requirements to ensure maximum operating efficiency.											
	Demonstrate the effective use of software development tools to develop software applications.		у	у	у	у	у	у	у	у	у	
	Apply an appropriate software development process to design a software application.	у	у	у	у	у	у	у	у	у	у	1
	Program a computer application using the appropriate programming language.	У	У	y	у	у	У	y	у	У	У	
	Demonstrate software testing procedures to ensure quality products.	у	у	у	У	У	У	У	у	у	у	1
	Perform quality assurance tasks as part of the software development cycle.	у	у	у	у	У	у	у	у	У	у	
	Perform software maintenance and customer support functions											1

Computer Science

CCTC*

IT-WD 1

IT-WD 2

IT-WD 3

IT - WD 4

IT - WD 5

IT-WD 6

IT-WD 7

IT-WD 8

IT-WD 9 IT-WD 10

Mountainside High School Portland Community College Sep-19

ICXHi10

Web & Digital Communications 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 for Course 1 Name, Course 2 Name, etc., and replace v secondary and first year of post-secondary. 6) Enter sch NCES code for the course (secondary only). 8) Enter nu Identify those courses that trigger the TSA for this POS. standards that are taught with intent and purpose, and a Note: The optional Focus Area tabs below are included very specific industry fociusare using those skill sets for of Study or if you want to use another set of industry vali

Comply with intellectual property laws, copyright laws and ethical

) E ry odo ho s t e o	Enter the come 1 Name, Courand first year of the courses that are taugh optional Foculific industry for	munity college name. 4) Enter the date. 5) Click on the cell urse 2 Name, etc., and replace with your POS course names-of post-secondary. 6) Enter school course numbers. 7) Enter se (secondary only). 8) Enter number of credits awarded. 9) nat trigger the TSA for this POS. 10) Finally, check those at with intent and purpose, and are assessed in each course. It with intent and purpose and are assessed in each course. It with intent and purpose and are assessed in each course are tabs below are included for those POSs that have a course using those skill sets for multiple options in a Progam of use another set of industry validated standards.	Intro Information Tech	Web Design	web Design 2	Computer Game Desi	gn Computer Game Desi	gn ² Java Programning	Java Programming	Robotics 1	Roboticsi	Computer Science Design
			A399Q	A431X	A432X	A445X	A446X	A4591	A4592	A562X	A563X	A485X
			10003	10201	10201	10160	10160	10155	10155	21009	21009	10155
	Focus Are	ea Knowledge and Skills (CTE standards)	0.25	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	Code Number	KS Statement	N	N	N	N	N	Υ	Υ	N	N	N
	ICXHi01	Analyze customer requirements to design and develop a Web or digital communication product.		у	у	у	у	у	у	у	у	у
2	ICXHi02	Apply the design and development process to produce user-focused Web and digital communications solutions.		у	У	у	У	у	у	У	у	у
3	ICXHi03	Write product specifications that define the scope of work aligned to customer requirements.							у			у
4	ICXH04	Demonstrate the effective use of tools for digital communication production, development and project management.	у	у	у	у	у	у	у	у	у	y
5	ICXHi05	Develop, administer and maintain Web applications.										
6	ICXHi06	Design, create and publish a digital communication product based on customer needs		у	у	у	у	у	у	у	у	
,	ICXHi07	Evaluate the functionality of a digital communication product using industry accepted techniques and metrics.						у	у			
}	ICXHi08	Implement quality assurance processes to deliver quality digital communication products and services										
)	ICXHi09	Perform maintenance and customer support functions for digital										
		La contraction of the contractio										