# Science, Computer Technology, Engineering & Math

# Computer Systems and Networking (APCSN)

# Associate in Applied Science Degree

Program Effective Term: Fall 2024

# High Demand Occupation High Skill Occupation High Wage Occupation

In this associate degree program, students will learn about the latest desktop, server, and networking technologies. This program has a core of hardware, operating system, networking, and scripting courses that all students must complete. In addition to the common core subjects, students will select a specialized track in one of the following areas: Local and Wide Area Networking and Microsoft Network Operating Systems (Server and Client).

#### Articulation:

Eastern Michigan University, several BS degrees

Copies can be obtained from the Counseling Office, a program advisor, or from the Curriculum and Assessment Office Web site: https://www.wccnet.edu/learn/transfer-wcc-credits/articulation-agreements.php.

# Minimum Concentration Credits Required for the Program:

Select a concentration.

#### **Computer Systems and Networking Concentrations**

Microsoft Network Operating System (MNOS)

First Semeste		(15 credits)
CST 120	Command Line Fundamentals	3
CST 160	Computer Systems Technology I	4
CST 165	Computer Systems Technology II	4
CST 185	Local and Mobile Networking Essentials	4
Second Semes		(16 credits)
CIS 120	Linux/UNIX I: Fundamentals	3
CNT 201	Microsoft Client/Server Administration	3
CNT 206	Introduction to Networks	4
Elective	Writing Elective(s)*	3
Elective	Math Elective(s)	3
Third Semeste	•	(15 credits)
CNT 211	Server Administration I	4
CNT 216	Switching, Routing and Wireless Essentials	4
CNT 223	Networking with Windows Server	4
Elective	Nat. Sci. Elective(s)	3
Fourth Semes		(16 credits)
BMG 205 or	Creating the Customer Experience	
CST 270	Computer Forensics	3-4
CNT 224	Identity with Windows Server	4
Elective	Speech/Comp. Elective(s)	3
Elective Elective	Speech/Comp. Elective(s) Soc. Sci. Elective(s)	3
		3 3 3

#### Minimum Credits Required for the Concentration or Option: 62

Local and Wide	e Area Networking (NETW)	(62 credits)
First Semester	•	(15 credits)
CST 120	Command Line Fundamentals	3
CST 160	Computer Systems Technology I	4
CST 165	Computer Systems Technology II	4
CST 185	Local and Mobile Networking Essentials	4

62

(62 credits)

Second Semes	ster	(16 credits)
CIS 120	Linux/UNIX I: Fundamentals	3
CNT 201	Microsoft Client/Server Administration	3
CNT 211	Server Administration I	4
Elective	Writing Elective(s)*	3
Elective	Math Elective(s)	3
Third Semeste	-	(17 credits)
BMG 205 or	Creating the Customer Experience	
CST 270	Computer Forensics	3-4
CNT 206	Introduction to Networks	4
CNT 216	Switching, Routing and Wireless Essentials	4
Elective	Soc. Sci. Elective(s)	3
Elective	Arts/Human. Elective(s)	3
Fourth Semes		(14 credits)
CNT 226	Enterprise Networking, Security, and Automation (ENSA)	4
CNT 290 or	Network Forensics	
CSS 210	Network Perimeter Protection - CCNA Security	4
Elective	Speech/Comp. Elective(s)	3
Elective	Nat. Sci. Elective(s)	3
Minimum Crea	lits Required for the Concentration or Option: 62	
Minimum Croe	lits Required for the Program:	62
mininum crec	ins Required for the Program:	02

# Notes:

\*Students transferring to a 4-year college should consider taking ENG 111 and completing MTA.

#### WASHTENAW COMMUNITY COLLEGE

# PROGRAM CHANGE FORM Program Code: APCSN Current Program Name: Computer Systems and Networking Effective Term: Fall 2024 Division Code: BCT Department:Computer Science & IT Effective Term: Fall 2024

#### Directions:

1. Attach the current program listing from the WCC catalog or website and indicate any changes to be made. 2. Draw lines through any text that should be deleted and write in additions. Extensive narrative changes can be included on a separate sheet.

- 3. Check the boxes below for each type of change being proposed. Changes to courses, discontinuing a course, or adding new courses as part of the proposed program change, must be approved separately using CurricUNET, but should be submitted at the same time as the program change form.
- 4. If changes affect the program assessment plan or if program outcomes are updated, please submit a <u>Program</u> <u>Assessment Plan Change</u> form. These changes must be approved separately from the program change form and should be submitted at the same time. Current program assessment plans can be found on the <u>Curriculum and Assessment</u> Program Information page.

Requested Changes:	
Remove course(s): CNT 223 & CNT 224 from the	e NETW concentration.
	Program outcomes (may also result from
Add course(s): removing or adding a course)*	
Program title (new title is	_)
Description	Program assessment plan*
Description	Accreditation information
Advisors	
Dreason edmission requirements	☑ Other
Program admission requirements Continuing eligibility requirements	
	Note: A change to the Award Type requires the submission of a new program proposal form and a separate
Show all changes on the <u>catalog page you attach.</u>	program inactivation form. Contact the Director of Curriculum & Assessment for more information.
* Please submit a Program Assessment Plan Change form.	

## Rationale for proposed changes:

Layout Changes. Removing CNT 223 & CNT 224 from the either/or option on the NETW concentration. Students will now be required to take CNT 211 which better aligns with the degree outcomes.

Financial/staffing/equipment/space implications: None

List departments that have been consulted regarding their use of this program. Computer Science & Information Technology

#### Signatures:

Reviewer	Print Name	Signature	Date
Initiator	Michay Kidd	Mali,	10-12-23
Department Chair	Scatt Shape	AN M	10-12-23
Division Dean/Administrator	Ein Samulski	Eis Jamueski	10-16-23
Please return completed form to the Office of Curriculum & Assessment, SC 257 or by e-mail to curriculum.assessment@wccnet.edu Once reviewed by the appropriate faculty committees we will secure the signature of the VPI.			
Reviewer	Print Name	Signature	Date

Office of Curriculum & Assessment Page 1 of 2 Revised 4/1/21

		WASHTENAW COMMUNIT	Y COLLEGE
PROGRAM CHANGE FORM		$D \downarrow I$ IA	
Curriculum Committee Chair	Randy Van Wagne	n Vanh	1-7-24
Assessment Committee Chair	Jessica Hale	Hale	1/8/24
Vice President for Instruction	Dr. Brandon Tucker	Thet	2/2/24
		.0]	

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Reviewed by C&A Committees 11/16/23

# Science, Computer Technology, Engineering & Math

# Computer Systems and Networking (APCSN)

# Associate in Applied Science Degree

Program Effective Term: Fall 2024

# High Demand Occupation High Skill Occupation High Wage Occupation

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#### Articulation:

Eastern Michigan University, several BS degrees

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### Minimum Concentration Credits Required for the Program:

Select a concentration.

#### **Computer Systems and Networking Concentrations**

Microsoft Network Operating System (MNOS)

First Semester	r de la companya de l	(15 credits)
CST 120	Command Line Fundamentals	3
CST 160	Computer Technology I	4
CST 165	Computer Technology II	4
CST 185	Local and Mobile Networking Essentials	4
	-	
Second Semes	iter	(16 credits)
CIS 120	Linux/UNIX I: Fundamentals	3
CNT 201	Administering Microsoft Windows Client Operating Systems	3
CNT 211	Installation, Storage, and Compute - Windows Server	4
Elective	Math Elective(s)	3
Elective	Speech/Comp. Elective(s)	3
Third Semeste	)r	(17 credits)
CNT 206	Introduction to Networks	4
CNT 216	Switching, Routing and Wireless Essentials	4
BMG 205 or	Creating the Customer Experience	
CST 270	Computer Forensics I	3
Elective	Nat. Sci. Elective(s)	3
Elective	Soc. Sci. Elective(s)	3
Fourth Semest	ter	(14 credits)
CNT 223	Networking with Windows Server	4
CNT 224	Identity with Windows Server	4
Elective	Writing Elective(s)*	3
Elective	Arts/Human. Elective(s)	3

#### Minimum Credits Required for the Concentration or Option: 62

Local and Wide	e Area Networking (NETW)	(62 credits)
First Semester		(15 credits)
CST 120	Command Line Fundamentals	3
CST 160	Computer Technology I	4
CST 165	Computer Technology II	4
CST 185	Local and Mobile Networking Essentials	4

62

(62 credits)

Second Seme	ester	(16 credits)
CIS 120	Linux/UNIX I: Fundamentals	3
CNT 201	Administering Microsoft Windows Client Operating Systems	3
CNT 211 or	Installation, Storage, and Compute - Windows Server	
CNT 223 or	Networking with Windows Server	
CNT 224	Identity with Windows Server	4
Elective	Math Elective(s)	3
Elective	Speech/Comp. Elective(s)	3
Third Semest	ter	(17 credits)
CNT 206	Introduction to Networks	4
CNT 216	Switching, Routing and Wireless Essentials	4
BMG 205 or	Creating the Customer Experience	
CST 270	Computer Forensics I	3
Elective	Nat. Sci. Elective(s)	3
Elective	Soc. Sci. Elective(s)	3
Fourth Seme	ster	(14 credits)
CNT 226	Enterprise Networking, Security, and Automation (ENSA)	4
CNT 290 or	Network Forensics	
CSS 210	Network Perimeter Protection - CCNA Security	4
Elective	Writing Elective(s)*	3
Elective	Arts/Human. Elective(s)	3
Minimum Cre	edits Required for the Concentration or Option: 62	
Minimum Cre	edits Required for the Program:	62

## Notes:

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# **PROGRAM CHANGE FORM**

Program Code: APCSN	Current Program Name: Co Systems and Networking	omputer	Effective Term: F	2024
Division Code: BCT	Department: CSIT			
submitted at the same time as t 4. If changes affect the program a <u>Assessment Plan Change</u> form	t should be deleted and write in a h type of change being proposed losed program change, must be he program change form.	additions. Extensive r I. Changes to course approved separately tcomes are updated, ed separately from th	narrative changes ca es, discontinuing a co using CurricUNET, b , please submit a <u>Pro</u> he program change fi	n be included ourse, or adding out should be ogram form and should
Requested Changes:				
<ul> <li>Remove course(s):CST</li> <li>Add course(s):CST 120</li> <li>Program title (new title is</li> <li>Description</li> <li>Advisors</li> <li>Program admission require</li> <li>Continuing eligibility require</li> </ul> Show all changes on the catalox * Please submit a Program Assessment	ments ments No g page you attach.	removing or addi Program assessm Accreditation info Other te: A change to the A of a new program pr program inactivation	ment plan*	— the submission eparate Director of
Rationale for proposed chan In discussion and review with our exercises are brought up to curre additional content. It is not possib hour course. This is due to signifi demanding PowerShell utilization originally created. Not to mention (revised last year) used them. The operating systems exploded with and are experiencing a disconne foundations and experiences in b	r advisory board and relevant fac ent levels of technology (a much- ble to implement all of the materi icant advances in the administra is over the past couple of decade that floppy disks are not utilized is course uses the same contact functionality. Basically, students ct between the Microsoft and Lin	needed upgrade), mi al needed for today's tive functions of the V es, something that div any longer and the p hours as it did 23 ye do not have enough ux command line cou	uch more is needed i entry-level positions Windows command li d not exist when this previous version of th ears ago while the Mi n exposure to make th	in the way of in a two-credit ne and more course was his course icrosoft hem proficient
Financial/staffing/equipment	/space implications:			
List departments that have b	een consulted regarding th	eir use of this pro	ogram.	
Signatures:				
Reviewer	Print Name	Signat	ture	Date

# PROGRAM CHANGE FORM

Initiator	James Lewis	James Lewis	May 5 2023
Department Chair	Scott Shaper	Scott Shaper	5/5/2023
Division Dean/Administrator	Eva Samulski	Eva Şamulski	05/31/2023
		of Curriculum & Assessment, SC	257
	e-mail to curriculum.ass		
Once reviewed by the ap	propriate faculty committe	es we will secure the signature of the	e VPI.
Reviewer	Print Name	Signature	Date
Curriculum Committee Chair	Randy Van Wagnen	Randy Van Wagnen	08/23/23
Assessment Committee Chair	Jessica Hale	Jessica Hale	08/28/23
Vice President for Instruction	Victor Vega	Vert	9/06/2023
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Reviewed by C&A Committees 8/3/23

# Science, Computer Technology, Engineering & Math

# **Computer Systems and Networking (APCSN)**

# Associate in Applied Science Degree

## Program Effective Term: Fall 2022

#### High Demand Occupation High Skill Occupation High Wage Occupation

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### Minimum Concentration Credits Required for the Program:

Select a concentration.

#### **Computer Systems and Networking Concentrations**

Microsoft Network Operating System (MNOS)

First Semester		(14 credits)
CST 118	Microsoft Command Line Fundamentals	2
CST 160	Computer Technology I	4
CST 165	Computer Technology II	4
CST 185	Local and Mobile Networking Essentials	4
Second Semes	ter	(16 credits)
CIS 120	Linux/UNIX I: Fundamentals	3
CNT 201	Administering Microsoft Windows Client Operating Systems	3
CNT 211	Installation, Storage, and Compute - Windows Server 2016	4
Elective	Math Elective(s)	3
Elective	Speech/Comp. Elective(s)	3
Third Semeste	r	(17 credits)
Third Semeste CNT 206	r Introduction to Networks	<b>(17 credits)</b> 4
CNT 206	Introduction to Networks	4
CNT 206 CNT 216	Introduction to Networks Switching, Routing and Wireless Essentials	4
CNT 206 CNT 216 BMG 205 or	Introduction to Networks Switching, Routing and Wireless Essentials Creating the Customer Experience	4
CNT 206 CNT 216 BMG 205 or CST 270	Introduction to Networks Switching, Routing and Wireless Essentials Creating the Customer Experience Computer Forensics I	4
CNT 206 CNT 216 BMG 205 or CST 270 Elective	Introduction to Networks Switching, Routing and Wireless Essentials Creating the Customer Experience Computer Forensics I Nat. Sci. Elective(s)	4 4 3 3
CNT 206 CNT 216 BMG 205 or CST 270 Elective	Introduction to Networks Switching, Routing and Wireless Essentials Creating the Customer Experience Computer Forensics I Nat. Sci. Elective(s) Soc. Sci. Elective(s)	4 4 3 3
CNT 206 CNT 216 BMG 205 or CST 270 Elective Elective	Introduction to Networks Switching, Routing and Wireless Essentials Creating the Customer Experience Computer Forensics I Nat. Sci. Elective(s) Soc. Sci. Elective(s)	4 4 3 3 3 3
CNT 206 CNT 216 BMG 205 or CST 270 Elective Elective	Introduction to Networks Switching, Routing and Wireless Essentials Creating the Customer Experience Computer Forensics I Nat. Sci. Elective(s) Soc. Sci. Elective(s)	4 4 3 3 3 3 (14 credits) 4 4
CNT 206 CNT 216 BMG 205 or CST 270 Elective Elective Fourth Semest CNT 223	Introduction to Networks Switching, Routing and Wireless Essentials Creating the Customer Experience Computer Forensics I Nat. Sci. Elective(s) Soc. Sci. Elective(s)	4 4 3 3 3 3 (14 credits) 4
CNT 206 CNT 216 BMG 205 or CST 270 Elective Elective Fourth Semest CNT 223 CNT 224	Introduction to Networks Switching, Routing and Wireless Essentials Creating the Customer Experience Computer Forensics I Nat. Sci. Elective(s) Soc. Sci. Elective(s) Ser Networking with Windows Server 2016 Identity with Windows Server 2016	4 4 3 3 3 3 (14 credits) 4 4

#### Minimum Credits Required for the Concentration or Option: 61

Local and white	Area Networking (NETW)	(61 credits)
First Semester		(14 credits)
CST 118	Microsoft Command Line Fundamentals	2
CST 160	Computer Technology I	4
CST 165	Computer Technology II	4
CST 185	Local and Mobile Networking Essentials	4

61

(61 credits)

Second Seme	ester	(16 credits
CIS 120	Linux/UNIX I: Fundamentals	
CNT 201	Administering Microsoft Windows Client Operating Systems	
CNT 211 or	Installation, Storage, and Compute - Windows Server 2016	
CNT 223 or	Networking with Windows Server 2016	
CNT 224	Identity with Windows Server 2016	4
Elective	Math Elective(s)	
Elective	Speech/Comp. Elective(s)	
Third Semest	ter	(17 credits
CNT 206	Introduction to Networks	
CNT 216	Switching, Routing and Wireless Essentials	4
BMG 205 or	Creating the Customer Experience	
CST 270	Computer Forensics I	
Elective	Nat. Sci. Elective(s)	
Elective	Soc. Sci. Elective(s)	
Fourth Seme	ster	(14 credits
CNT 226	Enterprise Networking, Security, and Automation (ENSA)	
CNT 290 or	Network Forensics	
CSS 210	Network Perimeter Protection - CCNA Security	4
Elective	Writing Elective(s)*	
Elective	Arts/Human. Elective(s)	:
Minimum Cre	edits Required for the Concentration or Option: 61	
Minimum Cre	edits Required for the Program:	6

# Notes:

\*Students transferring to a 4-year college should consider taking ENG 111 and completing MTA.

## **PROGRAM CHANGE FORM**

Program Code: APCSN	Current Program Name Systems & Networking	: Computer	Effective Term:	Fall 2022	
Division Code: BCT	Department: CSIT				
<ul> <li>Directions:</li> <li>1. Attach the current program listing from the WCC catalog or website and indicate any changes to be made.</li> <li>2. Draw lines through any text that should be deleted and write in additions. Extensive narrative changes can be included on a separate sheet.</li> <li>3. Check the boxes below for each type of change being proposed. Changes to courses, discontinuing a course, or adding new courses as part of the proposed program change, must be approved separately using CurricUNET, but should be submitted at the same time as the program change form.</li> <li>4. If changes affect the program assessment plan or if program outcomes are updated, please submit a Program Assessment Plan Change form. These changes must be approved separately from the program change form and should be submitted at the same time. Current program assessment plans can be found on the Curriculum and Assessment Program Information page.</li> </ul>					
Requested Changes:					
<ul> <li>Remove course(s):</li> <li>Add course(s):</li> <li>Program title (new title is)</li> <li>Program title (new title is)</li> <li>Description</li> <li>Advisors</li> <li>Program admission requirements</li> <li>Continuing eligibility requirements</li> <li>Show all changes on the catalog page you attach.</li> <li>* Please submit a Program Assessment Plan Change form.</li> </ul>					
Rationale for proposed chan Concentration is no longer offere		om the catalog.			
Financial/staffing/equipment/space implications:					
List departments that have been consulted regarding their use of this program.					
Signatures:					
Reviewer	Print Name	Sign	ature	Date	
Initiator	Cyndi Millns	Cyndi Millns		7/12/21	
Department Chair	Cyndi Millns	Cyndi Millns		7/12/21	
Division Dean/Administrator	Eva Samulski	Eva San		07/13/2021	

or by e-mail to curriculum.assessment@wccnet.edu

Once reviewed by the appro	priate faculty committees we w	ill secure the signature of the VPI and P	resident.
Reviewer	Print Name	Signature	Date

Reviewed by C&A Committees 9/16/21

# WASHTENAW COMMUNITY COLLEGE

# **PROGRAM CHANGE FORM**

Curriculum Committee Chair	Randy Van Wagnen	RVmm	9/23/21
Assessment Committee Chair	SHAWNDERON	SQ A	10.6.71
Vice President for Instruction	Kimberly Hurns	to home	10-6-21
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		Reviewed by	C&A Committees 9/16/21

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# Science, Computer Technology, Engineering & Math

# Computer Systems and Networking (APCSN)

# Associate in Applied Science Degree

Program Effective Term: Fall 2021

#### High Demand Occupation High Skill Occupation High Wage Occupation

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### Minimum Concentration Credits Required for the Program:

Select a concentration.

#### **Computer Systems and Networking Concentrations**

Linux Network Operating System (LNOS)

<b>First Semeste</b>	ar de la constancia de la	(14 credits)
CST 118	Microsoft Command Line Fundamentals	2
CST 160	Computer Technology I	4
CST 165	Computer Technology II	4
CST 185	Local and Mobile Networking Essentials	4
Second Seme		(16 credits)
CIS 120	Linux/UNIX I: Fundamentals	3
CNT 201	Administering Microsoft Windows Client Operating Systems	3
CNT 211 or	Installation, Storage, and Compute - Windows Server 2016	
CNT 223 or	Networking with Windows Server 2016	
CNT 224	Identity with Windows Server 2016	4
Elective	Math Elective(s)	
Elective	Speech/Comp. Elective(s)	3
Third Semest		(19 credits)
CIS 206	Linux/UNIX II: Basic System Administration, Networking, and Security	(19 ciedits)
CIS 200	Linux/UNIX II. Basic System Administration, Networking, and Security	4
CNT 206	Introduction to Networks	4
CNT 200		4
Elective	Switching, Routing and Wireless Essentials Nat. Sci. Elective(s)	3
LIECTIVE	Nat. Sci. Liective(S)	5
Fourth Semes	ster	(13 credits)
CIS 208	Linux/UNIX III: Intermediate System Administration, Networking, and Security	4
Elective	Writing Elective(s)*	3
Elective	Arts/Human. Elective(s)	3
Elective	Soc. Sci. Elective(s)	3
Minimum Cre	dits Required for the Concentration or Option: 62	

Microsoft Network Operating System (MNOS) (61 credits) First Semester (14 credits) CST 118 Microsoft Command Line Fundamentals 2 CST 160 4 Computer Technology I CST 165 Computer Technology II 4 CST 185 Local and Mobile Networking Essentials 4

Thursday, February 4, 2021 5:47:17 p.m.

61

62 credits)

Second Seme	ester	(16 credits)
CIS 120	Linux/UNIX I: Fundamentals	3
CNT 201	Administering Microsoft Windows Client Operating Systems	3
CNT 211	Installation, Storage, and Compute - Windows Server 2016	4
Elective	Math Elective(s)	3
Elective	Speech/Comp. Elective(s)	3
Third Semest	er	(17 credits)
CNT 206	Introduction to Networks	4
CNT 216	Switching, Routing and Wireless Essentials	4
BMG 205 or	Creating the Customer Experience	-
		2
CST 270	Computer Forensics I	3
Elective Elective	Nat. Sci. Elective(s) Soc. Sci. Elective(s)	3
Fourth Seme		(14 credits)
CNT 223	Networking with Windows Server 2016	4
CNT 224	Identity with Windows Server 2016	4
Elective	Writing Elective(s)*	3
Elective	Arts/Human. Elective(s)	3
Minimum Cre	dits Required for the Concentration or Option: 61	
Local and Wi	de Area Networking (NETW)	(61 credits)
First Semest	ar	(14 credits)
CST 118	Microsoft Command Line Fundamentals	(14 credits)
CST 160	Computer Technology I	4
	1 57	
CST 165	Computer Technology II	4
CST 185	Local and Mobile Networking Essentials	4
Second Seme	ester	(16 credits)
CIS 120	Linux/UNIX I: Fundamentals	3
CNT 201	Administering Microsoft Windows Client Operating Systems	3
CNT 211 or	Installation, Storage, and Compute - Windows Server 2016	
CNT 223 or	Networking with Windows Server 2016	
CNT 224	Identity with Windows Server 2016	4
Elective	Math Elective(s)	3
Elective	Speech/Comp. Elective(s)	3
		-
Third Semest CNT 206	er Introduction to Networks	(17 credits) 4
CNT 216	Switching, Routing and Wireless Essentials	4
BMG 205 or	Creating the Customer Experience	
CST 270	Computer Forensics I	3
Elective	Nat. Sci. Elective(s)	3
Elective	Soc. Sci. Elective(s)	3
Fourth Seme		(14 credits)
CNT 226	Enterprise Networking, Security, and Automation (ENSA)	4
CNT 290 or	Network Forensics	
CSS 210	Network Perimeter Protection - CCNA Security	4
Elective	Writing Elective(s)*	3
Elective	Arts/Human. Elective(s)	3
Minimum Cre	dits Required for the Concentration or Option: 61	
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minimum Cre	dits Required for the Program:	61

#### Notes:

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WASHTENAW COMMUNITY COLLEGE

<b>PROGRAM CHANGE OR DISCONTINUATION FO</b>	RM
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		ne: Computer Systems Associate Degree	and Eff	ective Term: Fa	all 2021
Division Code:	Department:	CSIT			
BCT					
Directions:					
	igh any text th	ting from the WCC catalc at should be deleted and eet.	•		
course, or adding	g new courses	ch type of change being as part of the proposed but should be submitted	program change, mu	ist be approved	separately
Requested Chang	ges:				
<ul> <li>Review</li> <li>Remove course</li> <li>Add course(s)</li> <li>Program title (</li> <li>Description</li> <li>Type of award</li> <li>Advisors</li> <li>Articulation inf</li> </ul>	: CSS 210 or title was		<ul> <li>Program admiss</li> <li>Continuing eligit</li> <li>Program outcom</li> <li>Accreditation inf</li> <li>Discontinuation plan that includes timetable for pha</li> <li>Other Course na</li> </ul>	bility requirement nes ormation (attach program s transition of stu sing out courses	ts discontinuation udents and s)
Rationale for pro	posed chang	d page from the catalog. es or discontinuation: as updated the program. It i			
		ram to stay in compliance w		ig Academy agree	
List departments No other departme		en consulted regarding e consulted.	their use of this pro	ogram.	
Signatures:					
Review	er	Print Name	Signat	ture	Date
Initiator		John P. Trame	John Trame	-	9/4/2020
Department Chair		Cyndi Millns	Cyndi Millns		9/8/2020
Division Dean/Adm	inistrator	Eva Samulski	Eva Samulski		09/09/2020
		oleted form to the Office of priate faculty committees we			
Vice President for I		Kimberly Hurns	Kimberly H	1	10/22/2020
President		Rose B. Bellanca	, Jone Cuy y 1		
o not write in shaded	area. Entered ir	n: Banner C&A Datab	ase Log File	Board Ap	proval

Reviewed by C&A Committees 10/15/20

# Science, Computer Technology, Engineering & Math

#### Computer Systems and Networking (APCSN) Associate in Applied Science Degree Program Effective Term: Fall 2020

In this associate degree program, students will learn about the latest desktop, server, and networking technologies. This program has a core of hardware, operating system, networking, and scripting courses that all students must complete. In addition to the common core subjects, students will select a specialized track in one of the following areas: Local and Wide Area Networking, Microsoft Network Operating Systems (Server and Client), and Linux Network Operating Systems.

#### Articulation:

Eastern Michigan University, several BS degrees

Copies can be obtained from the Counseling Office, a program advisor, or from the Curriculum and Assessment Office Web site: http://www.wccnet.edu/curriculum/articulation/levelone/colleges/.

# Minimum Concentration Credits Required for the Program:

Select a concentration.

#### **Computer Systems and Networking Concentrations**

Linux Network Operating System (LNOS)

		· · · · · · · · · · · · · · · · · · ·
First Semester		(14 credits)
CST 118	Microsoft Command Line Fundamentals	2
CST 160	Computer Technology I	4
CST 165	Computer Technology II	4
CST 185	Local and Mobile Networking Essentials	4
Second Semest		(17 credits)
CIS 121	Linux/UNIX I: Fundamentals	4
CNT 201	Administering Microsoft Windows Client Operating Systems	3
CNT 211 or	Installation, Storage, and Compute - Windows Server 2016	
CNT 223 or	Networking with Windows Server 2016	
CNT 224	Identity with Windows Server 2016	4
Elective	Math Elective(s)	
Elective	Speech/Comp. Elective(s)	3
Third Semester	•	(19 credits)
CIS 206	Linux/UNIX II: Basic System Administration, Networking, and Security	(19 ciedits)
CIS 220	Linux/UNIX Programming and Scripting I	4
CNT 206	Introduction to Networks	4
CNT 200	Routing and Switching Essentials	4
Elective		3
Elective	Nat. Sci. Elective(s)	S
Fourth Semest	er	(13 credits)
CIS 208	Linux/UNIX III: Intermediate System Administration, Networking, and Security	4
Elective	Writing Elective(s)*	3
Elective	Arts/Human. Elective(s)	3
Elective	Soc. Sci. Elective(s)	3
Minimum Credi	its Required for the Concentration or Option: 63	

Microsoft Network Operating System (MNOS) First Semester (14 credits) CST 118 Microsoft Command Line Fundamentals 2 CST 160 4 Computer Technology I CST 165 Computer Technology II 4 CST 185 Local and Mobile Networking Essentials 4

Tuesday, April 21, 2020 8:45:16 p.m.

#### (62 credits)

62

(63 credits)

	ester	(17 credits)
CIS 121	Linux/UNIX I: Fundamentals	2
CNT 201	Administering Microsoft Windows Client Operating Systems	
CNT 211	Installation, Storage, and Compute - Windows Server 2016	
Elective	Math Elective(s)	
Elective	Speech/Comp. Elective(s)	
Third Semest	ter	(17 credits
CNT 206	Introduction to Networks	
CNT 216	Routing and Switching Essentials	
BMG 205 or	Creating the Customer Experience	
CST 270	Computer Forensics I	
Elective	Nat. Sci. Elective(s)	
Elective	Soc. Sci. Elective(s)	
Fourth Seme	ster	(14 credits
CNT 223	Networking with Windows Server 2016	
CNT 224	Identity with Windows Server 2016	2
Elective	Writing Elective(s)*	3
Elective	Arts/Human. Elective(s)	
Minimum Cre	edits Required for the Concentration or Option: 62	
Local and Wi	ide Area Networking (NETW)	(62 credits)
First Semest	er	(14 credits)
CST 118	Microsoft Command Line Fundamentals	
CST 160	Computer Technology I	
CST 165	Computer Technology II	
CST 185	Local and Mobile Networking Essentials	2
Second Seme	actor	(17 credits)
CIS 121	Linux/UNIX I: Fundamentals	
CNT 201	Administering Microsoft Windows Client Operating Systems	
CNT 211 or		
CNT 223 or	Installation, Storage, and Compute - Windows Server 2016	
	Networking with Windows Server 2016	
CNT 224	Identity with Windows Server 2016	4
Elective	Math Elective(s)	
Elective	Speech/Comp. Elective(s)	
Third Semest		(17 credits
CNT 206	Introduction to Networks	•
CNT 216	Routing and Switching Essentials	
BMG 205 or	Creating the Customer Experience	
CST 270	Computer Forensics I	
Elective	Nat. Sci. Elective(s)	
Elective	Soc. Sci. Elective(s)	
Fourth Seme		(14 credits
CNT 226	Scaling Networks	
CNT 290 or	Network Forensics	
CSS 210	Network Perimeter Protection - CCNA Security	4
Elective	Writing Elective(s)*	
	Arts/Human. Elective(s)	
Elective		
	edits Required for the Concentration or Option: 62	

#### Notes:

\*Students transferring to a 4-year college should consider taking ENG 111 and completing MTA.

Received C+A 3/5/20

WASHTENAW COMMUNITY COLLEGE

PROGRAM C	HANGE OR	DISCONTINUATION	Form
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Program Code: (APCSN) Prog Networking	am Name: Compute	er Systems & Effective Term: Fall 2020	
Division Code: BCTD Depa	artment: CIS		
<ul> <li>Directions:</li> <li>1. Attach the current program listing from the WCC catalog or Web site and indicate any changes to be made.</li> <li>2. Draw lines through any text that should be deleted and write in additions. Extensive narrative changes can be included on a separate sheet.</li> <li>3. Check the boxes below for each type of change being proposed. Changes to courses, discontinuing a course, or adding new courses as part of the proposed program change, must be approved separately using a Master Syllabus form, but should be submitted at the same time as the program change form.</li> </ul>			
Requested Changes:         Review         Remove course(s): CST275, CI         Add course(s): CNT290 & CSS2         Program title (title was	210)	<ul> <li>Program admission requirements</li> <li>Continuing eligibility requirements</li> <li>Program outcomes</li> <li>Accreditation information</li> <li>Discontinuation (attach program discontinuation plan that includes transition of students and timetable for phasing out courses)</li> <li>Other</li> <li>Forensics Concentration is being eliminated.</li> <li>CIS221 has been moved to the third semester in the Linux concentration.</li> <li>A number of General Education courses have been moved to different semesters.</li> <li>"BMG205 or CST270" have been changed from "4" to "3".</li> <li>Remove Mike Galea from the list of advisor.</li> <li>Remove CNT 236 from program and add CNT 290 or CSS 210 to the program</li> <li>Remove the year from the title of CNT 211, 223 and 224</li> </ul>	

# Rationale for proposed changes or discontinuation:

- The Forensics concentration is being eliminated. There are two reasons which justify this change. The first
  is that the two Forensics courses, CST270 and CNT290 which would make up the primary courses in the
  Forensics concentration are now included in one of the Cisco Concentration options which if taken, would
  result in a virtually identical path as a revised Forensics Concentration. Secondly, the two Forensics courses
  will be also be included as part of the CSS Security Degree program. For these two reasons, there is no
  justification for a separate Forensics concentration.
- 2. With the Linux concentration, CIS221 has been moved to the Third Semester to provide consistency within the Linux Program.
- 3. A number of General Education courses have been switched around to better balance the hours for all semesters, and to lower the hours for the first semester of the program, eliminating the overwhelming effect that a high number of hours for the first semester can have on beginning students starting out in our programs.
- 4. The "or" option for the CST270 or BMG205 is being changed to reflect the lower of the two courses (BMG205

is three credit hours) as we are trying to show in our programs the minimum amount of hours to complete the degree.

- 5. Mike Galea has retired and shouldn't be listed as an advisor.
- 6. CIS161, PowerShell, is being removed as a requirement for all concentrations which are part of the Associate Degree. The justification for this lies with the objectives for that class being better suited for a programming discipline with the Administrative aspects of PowerShell already significantly included in the Windows classes. The basic scripting, which had been also part of the PowerShell class will now be included in CIS121, the first Linux Course
- 7. The Cisco concentration uses materials developed by Cisco directly, and they are making a significant change to their CCNA program, resulting in it being reduced to three courses. However, for the Cisco concentration in our Degree and Certificate programs, the desire is to keep the concentration at four courses at WCC. Therefore in line with this, and the increased emphasis on Network Security, we will include a fourth course, replacing CNT236 which will be an option of either CNT290, Network Forensics (face to face) OR CSS210 Network Perimeter Protection CCNA Security (giving an on-line option for Cisco completion matching up with the on-line option for the other three Cisco courses.). In line with this, in the Cisco concentration, even though CST 270 (Digital Forensics) is a requirement to take CNT290, (Network Forensics), with the on-line alternative to this course, CSS 210, the students should have the on-line option of BMG205 so that both requirements could be satisfied on-line, as CST270 is not a required option for CSS 210.
- 8. The version of Windows Server (2016) has been deleted from the Windows Server Class Titles (CNT211, CNT223, and CNT224) in order to eliminate having to change the course titles every time a new version comes out, which lately has been in less than a two year period. (We are presently using Server 2019)

Financial/staffing/equipment/space implications: NONE

List departments that have been consulted regarding their use of this program. CIS, CNT, CST

# Signatures:

Reviewer	Print Name	Signature	Date
Initiator	William Reichert	toblic Frichert	2 28 202
Department Chair	Pynel Millins.	Caunder MUINS	2
Division Dean/Administrator	Eta Samulski	En Jamulski	3-2-20
Please submit con Once reviewed by the app	mpleted form to the Office of ropriate faculty committees we w	Curriculum and Assessment (SC 25) vill secure the signature of the VPI and P	7). resident.
Vice President for Instruction	Kimberly Hurns	Kim Mitte	4-15-2020
President	Rose B. Bellanca	1 De part	
Do not write in shaded area. Entere	ed in: Banner C&A Databa	ase Log File Board A	pproval

Reviewed by C&A Committees 3/26/20

### Computer Systems and Networking (APCSN) Associate in Applied Science Degree Program Effective Term: Fall 2019

In this program, students will learn about the latest desktop, server, and networking technologies. This program has a core of hardware, operating system and scripting that all students must complete. In addition to the common core subjects, students will select a specialized track in one of the following areas: Local and Wide Area Networking, Microsoft Network Operating Systems, Linux Network Operating Systems, Computer and Network Security, or Data Recovery.

#### Articulation:

Davenport University, Bachelor degree; Eastern Michigan University, several BS degrees.

Copies can be obtained from the Counseling Office, a program advisor, or from the Curriculum and Assessment Office Web site: http://www.wccnet.edu/curriculum/articulation/levelone/colleges/.

# Minimum Concentration Credits Required for the Program:

63

Select a concentration.

#### **Computer Systems and Networking Concentrations**

(63 credits) Computer Forensics (CSFC) (17 credits) First Semester 2 CST 118 Microsoft Command Line Fundamentals 4 CST 160 Computer Technology I 4 CST 165 Computer Technology II 4 Local and Mobile Networking Essentials CST 185 3 Elective Speech/Comp. Elective(s) (17 credits) Second Semester 4 CIS 121 Linux/UNIX I: Fundamentals Administering Microsoft Windows Client Operating Systems 3 **CNT 201** Installation, Storage, and Compute - Windows Server 2016 CNT 211 or CNT 223 or Networking with Windows Server 2016 4 Identity with Windows Server 2016 **CNT 224** 3 Elective Math Elective(s) 3 Elective Writing Elective(s) 15 credits) **Third Semester** 4 **CNT 206** Introduction to Networks 4 **CNT 216** Routing and Switching Essentials 4 CST 270 **Computer Forensics I** 3 Elective Soc. Sci. Elective(s) (14 credits) Fourth Semester 4 Introduction to PowerShell CIS 161 4 CST 275 **Computer Forensics II** 3 Elective Arts/Human, Elective(s) 3 Nat. Sci. Elective(s) Elective Minimum Credits Required for the Concentration or Option: 63 (67 credits) Linux Network Operating System (LNOS)

17 credits) First Semester Microsoft Command Line Fundamentals 2 CST 118 4 CST 160 Computer Technology I Computer Technology II 4 CST 165 4 CST 185 Local and Mobile Networking Essentials 3 Speech/Comp. Elective(s) Elective (17 credits) Second Semester 4 Linux/UNIX I: Fundamentals CIS 121

CNT 201 AdministerIng MIcrosoft Windows Client Operating Systems

Tuesday, February 19, 2019 1:10:55 p.m.

Page 2 of 7

3

CNT 211 or	Installation, Storage, and Compute - Windows Server 2016	
CNT 223 or	Networking with Windows Server 2016	
CNT 224	Identity with Windows Server 2016	4
Elective	Math Elective(s)	3
Elective	Writing Elective(s)	3
Third Semest	er	(18 credits)
CIS 206	Linux/UNIX II: Basic System Administration, Networking, and Security	4
CNT 206	Introduction to Networks	4
CNT 216	Routing and Switching Essentials	4
Elective	Nat. Sci. Elective(s)	3
Elective	Soc. Sci. Elective(s)	3
Country Country		(15 credits)
Fourth Seme CIS 161	Introduction to PowerShell	4
	Linux/UNIX Programming and Scripting I	4
CIS 221	Linux/UNIX Frogramming and Scipping T Linux/UNIX III: Intermediate System Administration, Networking, and Security	4
CIS 208	Arts/Human. Elective(s)	3
Elective	Arts/Human, Elective(s)	5
Minimum Cre	dits Required for the Concentration or Option: 67	
Microsoft Ne	twork Operating System (MNOS)	(67 credits)
First Semest	ar	(17 credits)
CST 118	Microsoft Command Line Fundamentals	2
CST 160	Computer Technology I	4
CST 165	Computer Technology II	4
CST 185	Local and Mobile Networking Essentials	4
Elective	Speech/Comp. Elective(s)	3
		12
Second Semi		(17 credits)
CIS 121	Linux/UNIX I: Fundamentals	4
CNT 201	Administering Microsoft Windows Client Operating Systems	3
CNT 211	Installation, Storage, and Compute - Windows Server 2016	4
Elective	Math Elective(s)	3
Elective	Writing Elective(s)	3
Third Semes	ter	(18 credits)
CNT 206	Introduction to Networks	- 4
CNT 216	Routing and Switching Essentials	4
BMG 205 or	Creating the Customer Experience	
CST 270	Computer Forensics I	4
Elective	Nat. Sci. Elective(s)	3
Elective	Soc. Sci. Elective(s)	3
		(15 credits)
Fourth Seme		(15 creates)
CIS 161	Introduction to PowerShell	4
CNT 223	Networking with Windows Server 2016	4
CNT 224	Identity with Windows Server 2016	4
Elective	Arts/Human. Elective(s)	3
Minimum Cre	edits Required for the Concentration or Option: 67	
Local and Wi	de Area Networking (NETW)	(67 credits)
First Semest	er	(17 credits)
CST 118	Microsoft Command Line Fundamentals	2
CST 160	Computer Technology I	4
CST 165	Computer Technology II	4
CST 185	Local and Mobile Networking Essentials	4
Elective	Speech/Comp. Elective(s)	- 3
		14.72
Second Semi		(17 credits)
CIS 121	Linux/UNIX I: Fundamentals	4
CNT 201	Administering Microsoft Windows Client Operating Systems	3
Tuesday, Eshing	10 2010 1:10:EE n m	Page 3 of 7
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CNT 211 or	Installation, Storage, and Compute - Windows Server 2016	
CNT 223 or	Networking with Windows Server 2016	
CNT 224	Identity with Windows Server 2016	4
Elective	Math Elective(s)	3
Elective	Writing Elective(s)	3
Third Semest	er	(18 credits)
CNT 206	Introduction to Networks	4
CNT 216	Routing and Switching Essentials	4
BMG 205 or	Creating the Customer Experience	
CST 270	Computer Forensics I	4
Elective	Nat, Sci. Elective(s)	3
Elective	Soc. Sci. Elective(s)	3
Fourth Seme	ster	(15 credits)
CIS 161	Introduction to PowerShell	- 4
CNT 226	Scaling Networks	4
CNT 236	Connecting Networks	4
Elective	Arts/Human, Elective(s)	3
Minimum Cre	dits Required for the Concentration or Option: 67	
Minimum Cre	dits Required for the Program:	63

PROGRAM CHANGE OR DISCONTINUATION FORM

ProgramCode (APCSN)	Program Name: Computer Systems & Networking	Effective Term:	Fall 2019
Programcoue.(AFCON)	Flogram Name. Comparer Oyotomo & Hothorneg		

# Division Code: BCTD Department: CIS

# **Directions:**

- 1. Attach the current program listing from the WCC catalog or Web site and indicate any changes to be made.
- 2. Draw lines through any text that should be deleted and write in additions. Extensive narrative changes can be included on a separate sheet.
- 3. Check the boxes below for each type of change being proposed. Changes to courses, discontinuing a course, or adding new courses as part of the proposed program change, must be approved separately using a Master Syllabus form, but should be submitted at the same time as the program change form.

# **Requested Changes:**

<ul> <li>Review</li> <li>Remove course(s):CST225, Security Track</li> <li>Add course(s):CST185, CNT223, CNT224</li> <li>Program title (title was</li> <li>Description</li> <li>Type of award</li> <li>Advisors</li> <li>Articulation information</li> </ul> Show all changes on the attached page from the catalog.	<ul> <li>Program admission requirements</li> <li>Continuing eligibility requirements</li> <li>Program outcomes</li> <li>Accreditation information</li> <li>Discontinuation (attach program discontinuation plan that includes transition of students and timetable for phasing out courses)</li> <li>Other 1. Total Credit Hours for each of the five four alternate paths for getting this degree have increased by one.</li> <li>CNT223, or CNT224, are alternates to CNT211 for four of the five options – the other option already includes them. They do NOT add additional credit hours to the program.</li> <li>Removal of the Security Track as part of this degree</li> </ul>
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# Rationale for proposed changes or discontinuation:

The Program is being changed to align with five changes, the first three deal with the change of Class Number, Title and Credit hours for CST225/CST185 which were reflected in the recent syllabus update.

 Course Number is being changed to reflect that it is part of the first-year of the CTCSTC program, along with CST118, CST160, and CST165. Also it is now an initial course in the Automotive Department Programs as well.
 Course Name is being changed to reflect that Networking's scope, types of Devices, etc. has vastly changed in the last five to 10 years – networking is no longer restricted to in-office LAN networks.

3. Credit hours for the Course (3 to 4) is being changed to reflect the actual contact hours per week in the course (4) and to support the additional material (both lectures and labs) reflecting new and varied types of networking (such as that used in Autonomous vehicles) that are being introduced – the change is reflected in the credit hour totals for each of the alternate paths that make up this Associate Degree and is shown below for each.

4. The fourth change deals with alternatives for taking the Microsoft Server Administration Requirement. Starting with Server 2016, Microsoft no longer uses a stepped structure with the three MCSA certification courses building on each other – i.e. - a beginning level course, a more advanced course, and a most advanced course. With Server 2016, the three courses now are all "independent" of each other, covering different areas of Administration. This has real advantages for the Students:

- a. Students will have the opportunity to take the course which may best fit their interests and goals, the program they are enrolled in, etc.
- b. With three possible courses, more times are available for taking courses which better fit student schedules
- 5. Fifth change is the removal of the Security Track, as there is a totally new Cyber Security Associate Degree.

# Financial/staffing/equipment/space implications: NONE

lagged 1/15/19

# List departments that have been consulted regarding their use of this program. CST, CNT, CIS APASRV, CTASVT, APATT

# Signatures:

Reviewer	Print Name	Signature	Date
Initiator	William Reichert	William Reichert	12/28/2018
Department Chair	Phil Gerer	Aluge Zen	1/12/2010
Division Dean/Administrator	En SAMWSKI	(in Janutsk)	1-22-19
Please submit co Once reviewed by the app	ropriate faculty committees we	will secure the signature of the VPI	and President.
Vice President for Instruction	Kimberly Hurns	Kulle	2/11/19
		John shake	
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		' AL	

# Computer Systems and Networking (APCSN)

Associate in Applied Science Degree

2016 - 2017 2017 - 2018

2018 - 2019

# Description

In this program, students will learn about the latest desktop, server, and networking technologies. This program has a core of hardware, operating system and scripting that all students must complete. In addition to the common core subjects, students will select a specialized track in one of the following areas: Local and Wide Area Networking, Microsoft Network Operating Systems, Linux Network Operating Systems, Computer and Network Security, or Data Recovery.

# Articulation

Davenport University, Bachelor degree; Eastern Michigan University, several BS degrees.

Copies can be obtained from the Counseling Office, a program advisor, or from the Curriculum and Assessment Office Web site: www.wccnet.edu/curriculum/articulation/levelone/colleges/.<sup>p<sup>\*</sup></sup>

#### Contact Information

Division: Business/Computer Technologies Department: Computer Instruction Dept Advisors: Michael Galea Philip Geyer

James Lewis William Reichert John Trame

#### Requirements

(Items marked in orange are available online.)

Select a concentration for requirements and total credits required for program.

Computer Forensics (CSFC)

First Se		in a substantial state
Class	Press F11 to exit full screen	Minimum Credits
CST 118	Microsoft Command Line Fundamentals	2
CST 16	0 Computer Technology I	4
<u>CST 16</u>	5 Computer Technology II	
	5 PO Holmarking	
CST185	Local and Mobile Networking Essentials	4
Elective	(s) Writing/Composition or Communication	3
Total		16 7

# Second Semester

Class	Title	Minimum Credits
CIS 121	Linux/UNIX I: Fundamentals	4
CNT 201	Administering Microsoft Windows Client Operating Systems	3
CNT 211	Installation, Storage, and Compute - Windows Server 2016	4

4:
4

Elective(s)	Writing/Composition	3
Total		17
hird Semest		THE STREET, ST
Class	Title	Minimum Credits
CNT 206	Introduction to Networks	
CNT 216	Routing and Switching Essentials	
CST 270	Computer Forensics I	· · · · · · · · · · · · · · · · · · ·
and a stand in face to		
Elective(s)	Social and Behavioral Science	PROVIDENT - PARTY AND THE PROPERTY
<u>Elective(s)</u> Total	Social and Behavioral Science	11
THE REAL PROPERTY AND		PROVIDENT - PARTY AND THE PROPERTY
Total		WEAKING STREET TO WAR AND THE DOUG
Total ourth Seme	ster	1!
Total ourth Seme Class	ster Title	19 Minimun Credit
Total ourth Seme Class <u>CIS 161</u>	ster Title Introduction to PowerShell	1 Minimun Credit
Total ourth Seme Class <u>CIS 161</u> <u>CST 275</u>	ster Title Introduction to PowerShell Computer Forensics II	1 Minimun Credit

Linux Network Operating System (LNOS)

First Semes		N. H. S. J. Martin and Res. Mar. 19
Class	Press F11 to exit full screen	Minimum Credits
<u>CST 118</u>	Microsoft Command Line Fundamentals	2
<u>CST 160</u>	Computer Technology I	4
CST 165	Computer Technology II	4
<del>00T 225</del>	- TO Networking	
CST185	Local and Mobile Networking Essentials	4
Elective(s)	Writing/Composition or Communication	3
Total		-16-1

#### Second Semester

Class	Title	Minimum Credits
<u>CIS 121</u>	Linux/UNIX I: Fundamentals	4
<u>CNT 201</u>	Administering Microsoft Windows Client Operating Systems	3
CNT 211	installation, Storage, and Compute - Windows Server 2016	4
OR		
CNT223	Networking with Window Server 2016	4
OR		
CNT224	Identity with Windows Server 2016	4

#### <u>Math</u> Elective(s) Whiting/Composition Elective(s) 17 Total

#### Third Semester

Class	Title	Minimum Credits
CIS 206	Linux/UNIX II: Basic System Administration, Networking, and Security	4
CNT 206	Introduction to Networks	4
CNT 216	Routing and Switching Essentials	4
Elective(s)	Natural Sciences	3
Elective(s)	Social and Behavioral Science	3
Total		18

#### **Fourth Semester**

Class	Title	Minimum Credits
CIS 161	Introduction to PowerShell	4
CIS 221	Linux/UNIX Programming and Scripting I	4
CIS 208	Linux/UNIX III: Intermediate System Administration, Networking, and Security	4
Elective(s)	Arts and Humanities	3
Total		15

3

3

-66 67 Microsoft Network Operating System (MNOS)

rst Semeste		Minimum
Class	Press F11 to exit full screen	Credits
<u>ST 118</u>	Microsoft Command Line Fundamentals	2
CST 160	Computer Technology I	4
<u>ST 165</u>	Computer Technology II	4
751 225	T & Networking	
T185	Local and Mobile Networking Essentials	4
Elective(s)	Writing/Composition or Communication	3
fotal		為於 <b>—16</b>
econd Seme	ester	at the construction of
Class	Title	Minimum Credits
CIS 121	Linux/UNIX I: Fundamentals	4
CNT 201	Administering Microsoft Windows Client Operating Systems	3
CNT 211	Installation, Storage, and Compute - Windows Server 2016	4
Elective(s)	Math	3
Elective(s)	Writing/Composition	3
Total		14
Constant of Administratio	er	1
hird Semes	ter Title	
hird Semest Class		
hird Semest Class <u>CNT 206</u>	Title	Credits
hird Semest Class <u>CNT 206</u> CNT 216	Title Introduction to Networks	Credits
hird Semest Class <u>CNT 206</u> <u>CNT 216</u> <u>BMG 205</u>	Title Introduction to Networks Routing and Switching Essentials	Credits
Total hird Semest Class CNT 206 CNT 216 BMG 205 CST 270 Elective(s)	Title         Introduction to Networks         Routing and Switching Essentials         or       Creating the Customer Experience	17 Minimum Credits 4 4 4
hird Semest Class CNT 206 CNT 216 BMG 205 CST 270	Title         Introduction to Networks         Routing and Switching Essentials         or       Creating the Customer Experience         Computer Forensics I	Credits 4 4
hird Semest Class CNT 206 CNT 216 BMG 205 CST 270 Elective(s)	Title         Introduction to Networks         Routing and Switching Essentials         or       Creating the Customer Experience         Computer Forensics I         Natural Sciences	Credits 4 4 3
hird Semest Class CNT 206 CNT 216 BMG 205 CST 270 Elective(s) Elective(s)	Title         Introduction to Networks         Routing and Switching Essentials         or       Creating the Customer Experience         Computer Forensics I         Natural Sciences         Social and Behavioral Science	Credits 4 4 3 3 3 18
hird Semest Class CNT 206 CNT 216 BMG 205 CST 270 Elective(s) Elective(s) Total ourth Seme	Title         Introduction to Networks         Routing and Switching Essentials         or       Creating the Customer Experience         Computer Forensics I         Natural Sciences         Social and Behavioral Science	Credits 4 4 3 3 3 18 18 Minimur
hird Semest Class CNT 206 CNT 216 BMG 205 CST 270 Elective(s) Elective(s) Total ourth Seme Class	Title         Introduction to Networks         Routing and Switching Essentials         or       Creating the Customer Experience         Computer Forensics I         Natural Sciences         Social and Behavioral Science	Credits
hird Semest Class CNT 206 CNT 216 BMG 205 CST 270 Elective(s) Elective(s) Total ourth Seme Class Class	Title         Introduction to Networks         Routing and Switching Essentials         or       Creating the Customer Experience         Computer Forensics I         Natural Sciences         Social and Behavioral Science	Credits 4 4 3 3 3 18 18 18 18 18 18 18 18 18 18 18 18 18
hird Semest Class CNT 206 CNT 216 BMG 205 CST 270 Elective(s) Total Class Class Class Class Class	Title         Introduction to Networks         Routing and Switching Essentials         or       Creating the Customer Experience         Computer Forensics I         Natural Sciences         Social and Behavioral Science         ster         Title         Introduction to PowerShell	Credits 4 4 3 3 3 3 4 8 3 4 8 3 4 8 3 4 8 3 4 8 3 4 8 3 4 8 3 4 8 3 4 8 3 4 8 3 4 8 3 4 8 3 4 8 3 4 4 3 4 4 4 4
hird Semest Class CNT 206 CNT 216 BMG 205 CST 270 Elective(s) Elective(s) Total Ourth Seme Class	Title         Introduction to Networks         Routing and Switching Essentials         or       Creating the Customer Experience         Computer Forensics I         Natural Sciences         Social and Behavioral Science         ster         Title         Introduction to PowerShell         Networking with Windows Server 2016	Credits 4 18 Minimun Credits
hird Semest Class CNT 206 CNT 216 BMG 205 CST 270 Elective(s) Elective(s) Total	Title         Introduction to Networks         Routing and Switching Essentials         or       Creating the Customer Experience         Computer Forensics I         Natural Sciences         Social and Behavioral Science         ster         Title         Introduction to PowerShell         Networking with Windows Server 2016         Identity with Windows Server 2016	Credits 4 4 3 3 18 Minimum Credits 4 4 4 11

# Local and Wide Area Networking (NETW)

	Title	Credits
<u>CST 118</u>	Microsoft Command Line Fundamentals	2
CST 160	Computer Technology I	4
CST 165	Computer Technology II	4
CCT 201	DC Matwarking	-3
CST185	Local and Mobile Networking Essentials	4
Elective(s)	Writing/Composition or Communication	3
Total		-16
econd Sem	ester	
		Minimum
Class	Title	Credits
<u>CIS 121</u>	Linux/UNIX I: Fundamentals	4
CNT 201	Administering Microsoft Windows Client Operating Systems	3
<u>CNT 211</u>	Installation, Storage, and Compute - Windows Server 2016	-4
OR		
CNT223	Networking with Window Server 2016	4
OR	2016	4
CNT224	Identity with Windows Server 2016	
Elective(s)	Math	3
Elective(s)	Writing/Composition	3 15:09 1002000000000000000000000000000000000
Total		17
Third Semes	ter	
Class	Title	Minimum Credits
CNT 206	Introduction to Networks	4
CNT 216	Routing and Switching Essentials	4
BMG 205	or Creating the Customer Experience	
CST 270	Computer Forensics 1	4
Elective(s)	Natural Sciences	3
Elective(s)	Social and Behavioral Science	3
Total		18
	ester	
Fourth Semi		The second states of the second states and the second states and the second states and the second states and the
Fourth Sem	Title	Minimum Credits
	Title Introduction to PowerShell	Minimum Credits 4
Class		Credits

Total Credits Required:

3

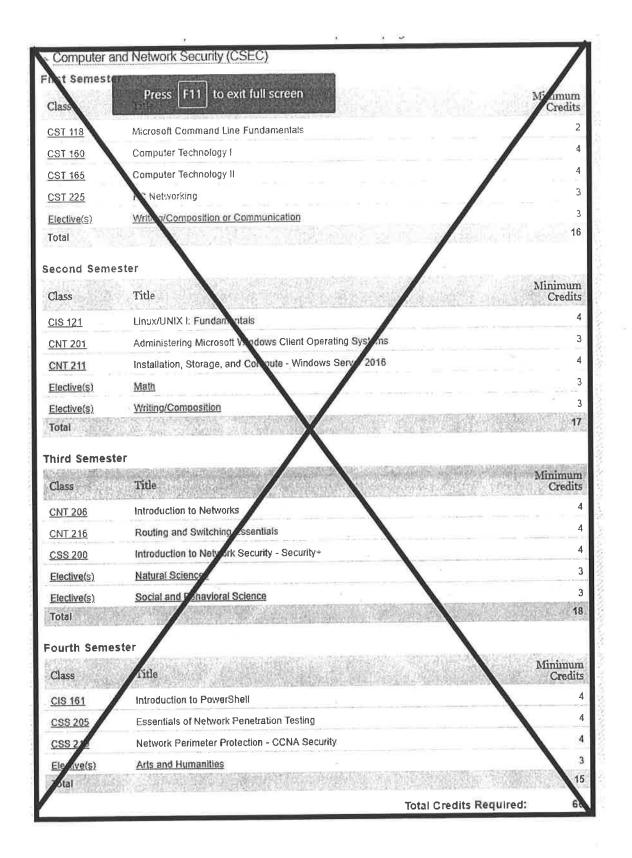
15

67

Elective(s)

Total

Arts and Humanities



APCSN

# WCC General Education Requirements Effective Fall 2018

Associate degree programs were updated to meet the revised WCC general education requirements below.

# **Course Distribution Requirements**

Associate degree students must complete courses from each of six General Education content areas. The requirements vary, depending on which degree is being earned. The number of general education credit hours required for each degree is as follows.

	AA	AS	AAS
Writing/Composition	3-4 credits	3-4 credits	3-4 credits
2nd Writing/Composition or Communication	3-4 credits	3 credits	3 credits
Mathematics	3-4 credits	3-4 credits	3-4 credits
Natural Sciences <sup>1</sup>	7-8 credits	7-8 credits	3-4 credits
Social & Behavioral Science <sup>2</sup>	6 credits	6 credits	3 credits
Arts and Humanities <sup>3</sup>	6 credits	6 credits	3 credits
General Education Electives to reach 30 credits	0-2 credits	0-2 credits	N/A
Minimum	30 credits	30 credits	18 credits

<sup>1</sup> Two courses in Natural Science including one with laboratory experience (from two disciplines)

<sup>2</sup> From two disciplines

<sup>3</sup> From two disciplines

#### **Computer Systems and Networking (APCSN)** Associate in Applied Science Degree Program Effective Term: Fall 2018

In this program, students will learn about the latest desktop, server, and networking technologies. This program has a core of hardware, operating system and scripting that all students must complete. In addition to the common core subjects, students will select a specialized track in one of the following areas: Local and Wide Area Networking, Microsoft Network Operating Systems, Linux Network Operating Systems, Computer and Network Security, or Data Recovery.

#### Articulation:

Davenport University, Bachelor degree; Eastern Michigan University, several BS degrees.

Copies can be obtained from the Counseling Office, a program advisor, or from the Curriculum and Assessment Office Web site: http://www.wccnet.edu/curriculum/articulation/levelone/colleges/.

# Minimum Concentration Credits Required for the Program:

#### 65

3

(66 credits)

Select a concentration.

### **Computer Systems and Networking Concentrations**

Computer and Network Security (CSEC)

First Semes	ter	(16 credits)
CST 118	Microsoft Command Line Fundamentals	2
CST 160	Computer Technology I	4
CST 165	Computer Technology II	4
CST 225	PC Networking	3
Elective	Speech/Comp. Elective(s)	3
Second Sen	nester	(17 credits)
CIS 121	Linux/UNIX I: Fundamentals	4
CNT 201	Administering Microsoft Windows Client Operating Systems	3
CNT 211	Installation, Storage, and Compute - Windows Server 2016	4
Elective	Math Elective(s)	3
Elective	Writing Elective(s)	3
Third Seme	ster	(18 credits)
CNT 206	Introduction to Networks	4
CNT 216	Routing and Switching Essentials	4
CSS 200	Introduction to Network Security - Security+	4
	Nat. Sci. Elective(s)	3
	Soc. Sci. Elective(s)	3
Fourth Sem	ester	(15 credits)
CIS 161	Introduction to PowerShell	4
CSS 205	Essentials of Network Penetration Testing	4
CSS 210	Network Perimeter Protection - CCNA Security	4
Elective	Arts/Human. Elective(s)	3
Minimum Ci	redits Required for the Concentration or Option: 66	
Computer F	orensics (CSFC)	(65 credits)
First Semes	iter	(16 credits)
CST 118	Microsoft Command Line Fundamentals	2
CST 160	Computer Technology I	4
CST 165	Computer Technology II	4

Elective	Speech/Comp. Elective(s)	3
Second Sem	ester	(17 credits)
CIS 121	Linux/UNIX I: Fundamentals	4
CNT 201	Administering Microsoft Windows Client Operating Systems	3
CNT 211	Installation, Storage, and Compute - Windows Server 2016	4

Monday, June 25, 2018 10:27:0 a.m.

PC Networking

CST 225

Elective Third Semeste CNT 206 CNT 216 CST 270 Elective	Writing Elective(s) er Introduction to Networks	3
CNT 206 CNT 216 CST 270		
CNT 216 CST 270		(15 credits)
CST 270	Routing and Switching Essentials	4
11-11-11-11-11-11-11-11-11-11-11-11-11-	Computer Forensics I	4
Elective	Soc. Sci. Elective(s)	3
Fourth Semes	ter	(17 credits)
CIS 161	Introduction to PowerShell	4
CST 275	Computer Forensics II	4
CST 278	Computer Forensics for Mobile Devices	3
Elective Elective	Arts/Human. Elective(s) Nat. Sci. Elective(s)	3
	dits Required for the Concentration or Option: 65	
Market and a second	k Operating System (LNOS)	(66
		(66 credits)
First Semester		(16 credits)
CST 118 CST 160	Microsoft Command Line Fundamentals Computer Technology I	2
CST 165	Computer Technology II	4
CST 225	PC Networking	4
Elective	Speech/Comp. Elective(s)	3
Second Semes	ster	(17 credits)
CIS 121	Linux/UNIX I: Fundamentals	4
CNT 201	Administering Microsoft Windows Client Operating Systems	3
CNT 211	Installation, Storage, and Compute - Windows Server 2016	4
Elective	Math Elective(s)	3
Elective	Writing Elective(s)	3
Third Semeste		(18 credits)
CIS 206	Linux/UNIX II: Basic System Administration, Networking, and Security	4
CNT 206	Introduction to Networks	4
CNT 216	Routing and Switching Essentials	4
Elective Elective	Nat. Sci. Elective(s) Soc. Sci. Elective(s)	3
Fourth Semest CIS 161	Introduction to PowerShell	(15 credits)
CIS 221	Linux/UNIX Programming and Scripting I	4
CIS 208	Linux/UNIX III: Intermediate System Administration, Networking, and Security	4
Elective	Arts/Human. Elective(s)	3
Minimum Cred	lits Required for the Concentration or Option: 66	
Microsoft Netv	vork Operating System (MNOS)	(66 credits)
First Semester		(16 credits)
CST 118	Microsoft Command Line Fundamentals	(10 credits)
CST 160	Computer Technology I	4
CST 165	Computer Technology II	4
CST 225	PC Networking	3
Elective	Speech/Comp. Elective(s)	3
Second Semes		(17 credits)
CIS 121	Linux/UNIX I: Fundamentals	4
CNT 201 CNT 211	Administering Microsoft Windows Client Operating Systems	3
Elective	Installation, Storage, and Compute - Windows Server 2016 Math Elective(s)	4
Elective	Writing Elective(s)	3
		3

Monday, June 25, 201 10:27:0 a.m.

Third Semest	er de lande voerende verste de service de lande verste de lande verste de lande verste de lande verste de lande	(18 credits)
CNT 206	Introduction to Networks	4
CNT 216	Routing and Switching Essentials	
BMG 205 or	Creating the Customer Experience	
CST 270	Computer Forensics I	
Elective	Nat. Sci. Elective(s)	
Elective	Soc. Sci. Elective(s)	
Fourth Seme	ster	(15 credits
CIS 161	Introduction to PowerShell	
CNT 223	Networking with Windows Server 2016	
CNT 224	Identity with Windows Server 2016	
Elective	Arts/Human. Elective(s)	3
Minimum Cre	dits Required for the Concentration or Option: 66	
Local and Wi	de Area Networking (NETW)	(66 credits
First Semeste		(16 credits)
CST 118	Microsoft Command Line Fundamentals	
CST 160	Computer Technology I	
CST 165	Computer Technology II	
CST 225	PC Networking	
Elective	Speech/Comp. Elective(s)	
Second Seme		(17 credits)
CIS 121	Linux/UNIX I: Fundamentals	4
CNT 201	Administering Microsoft Windows Client Operating Systems	
CNT 211	Installation, Storage, and Compute - Windows Server 2016	
Elective	Math Elective(s)	
Elective	Writing Elective(s)	
Third Semest		(18 credits
CNT 206	Introduction to Networks	4
CNT 216	Routing and Switching Essentials	· · · · · · · · · · · · · · · · · · ·
BMG 205 or	Creating the Customer Experience	
CST 270	Computer Forensics I	
Elective	Nat. Sci. Elective(s)	
Elective	Soc. Sci. Elective(s)	
Fourth Seme		(15 credits)
CIS 161	Introduction to PowerShell	4
CNT 226	Scaling Networks	
CNT 236	Connecting Networks	4
Elective	Arts/Human. Elective(s)	
Minimum Cre	dits Required for the Concentration or Option: 66	
Minimum Cre	dits Required for the Program:	65
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# WASHTENAW COMMUNITY COLLEGE Done 1/18/18

GENERAL EDUCATION REVISION AAS PROGRAM CHANGE FORM 2018-2019

# Due December 8, 2017

Program Code: APCSN	Program Name: Computer Systems and Networking
Division Code: BCT	Department:

This form is to be used only for General Education Revision Program Changes for Associate in Applied Science (AAS) programs. Any other program changes should be submitted separately using a standard Program Change Form. **Directions:** 

- 1. Review each general education area under **Requested Changes** below and respond as needed.
- 2. Attach the semester program layout showing the current program listing from the WCC catalog.
  - a. Indicate any changes to be made on the semester layout.
  - b. Draw a line through any courses that should be removed on the semester layout.
  - c. Write in any courses that need to be added on the semester layout.
- 3. Submit this form and semester program layout to the Office of Curriculum and Assessment (SC 257).

Current General Education Requirements AAS		Revised General Education Requirements 2018-2019 AAS	
Writing	3-4 credits	English Composition	3 - 4 credits
Speech Mathematics	3 credits 3 - 4 credits	2 <sup>nd</sup> Course in English Composition or one course in Communication	3 - 4 credits
Natural Sciences	3 - 4 credits	Mathematics	3 - 4 credits
Social & Behavioral Sciences	3 credits	Natural Sciences	3 - 5 credits
Arts & Humanities	3 credits	Social & Behavioral Sciences	3 credits
Critical Thinking	0 credits	Arts & Humanities from	3 credits
Computer & Information Literacy	3 credits	Total	18 credits
Total	21-24 credits		

Please review each General Education Area in the chart below, and record the needed changes in the chart and on the attached semester program layout.

REQUESTED CHANGES						
	General Education Area					
	<b>English Composition</b> – The requirement for one writing/English composition course remains the same. No changes will be made unless specifically requested below. (Use Writing Elective or ENG 111)					
	Optional Change: Non e					
	<ul> <li>2<sup>nd</sup> Course in English Composition or one course in Communication</li> <li>WCC previously required both a second composition/writing course and a communication course. Your options are:         <ol> <li>Allow students to select any course that meets composition/writing or communication (<i>recommended</i>).</li> <li>Require students to take a specific composition course (identify course below and on semester layout).</li> <li>Require students to take a specific communication course (identify course below and on semester layout).</li> </ol> </li> </ul>					
	Requested Change: None - Still listing an unspecified speech rousse					

r	Mathematics – The requirement for one mathematics course remains the same. However, the courses that neet the MTA requirement have changed slightly. See the course listing for details			
(	Dptional Change: None			
	<b>Natural Sciences -</b> The requirement for one natural science course remains the same. No changes will be made unless specifically requested below.			
(	Dptional Change: NONE			
	Social & Behavioral Sciences – The requirement for one social and behavioral science course remains the same. No changes will be made unless specifically requested below.			
(	Optional Change: hone			
1	Arts & Humanities – The requirement for one arts and humanities course remains the same. No changes will be made unless specifically requested below. (Note: A department can designate a COM course as a requirement here. The same course cannot be counted in two areas.)			
(	Optional Change: None			
	Computer and Information Literacy The requirement for computer and information literacy has been removed. Your options are: 1. Continue to require a specific computer course. If a specific course is required in your program, we wil			

Reviewer	Print Name	Signature	Date
Initiator	Phil Geyer	Au Gern	12-7-17
Department Chair	Phil Geyer	Rit Lyn	12-7-17
Division Dean/ Administrator	EVA SAMULSKI	Eva Jamuerki	12-12-17
Vice President for Instruction		Kn lit	1/9/18
	0		//

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#### School of Information Technology

The School of Information Technology gathers the diverse areas that make up the computer technology of today. From basic programming languages to systems development through networking, these programs provide the core of information technology. Develop skills in computer networking or programming in the growing field of applied information technology.

Washtenaw Community College offers programs at several levels for students who want to begin new careers, or advance in their existing careers. The first level is the certificate, which can vary from nine to thirty-six credits, depending on the field. Certificates generally prepare students for entry-level jobs.

After completing a certificate, students can progress to the next level, the advanced certificate. The credit hours required for these programs also vary. This type of certificate provides a more specialized level of skill development, and often allows students to upgrade their positions at their places of employment.

The next level, an Associate in Applied Science, is available for some programs. For some career fields, it is possible to earn a certificate, an advanced certificate, and an Associate in Applied Science degree in the same field. In these cases, the credit hours from the certificate and advanced certificate can be applied to the credit hours needed for the Associate in Applied Science degree.

Alternatively, students can earn an AAS in Occupational Studies by completing a certificate, an advanced certificate (if it exists) and General Education requirements.

#### Networking

Develop and manage computer networks as a network administrator/engineer.

#### Computer Systems and Networking (APCSN) Associate in Applied Science Degree Program Effective Term: Fall 2015

In this program, students will learn about the latest desktop, server, and networking technologies. This program has a core of hardware, operating system and scripting that all students must complete. In addition to the common core subjects, students will select a specialized track in one of the following areas: Local and Wide Area Networking, Microsoft Network Operating Systems, Linux Network Operating Systems, Computer and Network Security, or Data Recovery.

#### Articulation:

Davenport University, Bachelor degree; Eastern Michigan University, several BS degrees.

Copies can be obtained from the Counseling Office, a program advisor, or from the Curriculum and Assessment Office Web site: http://www.wccnet.edu/departments/curriculum/articulation.php?levelone=colleges.

### Minimum Concentration Credits Required for the Program:

65

(66 credits)

(65 credits)

Select a concentration.

#### **Computer Systems and Networking Concentrations**

#### Computer and Network Security (CSEC)

CST 118	Microsoft Command Line Fundamentals	2
CST 160	Computer Technology I	4
CST 165	Computer Technology II	4
CST 225	PC Networking	3
Elective	Speech Elective(s)	3
CIS 121	Linux/UNIX I: Fundamentals	4
CNT 201	Administering Microsoft Windows Client Operating Systems	3
CNT 211	Installing and Configuring Windows Server 2012	4
Elective	Math Elective(s)	3
Elective	Writing Elective(s)	3
CNT 206 CNT 216 CSS 200	Internetworking I - Fundamentals Internetworking II - Routers Introduction to Network Security Nat. Sci. Elective(s) Soc. Sci. Elective(s)	4 4 4 3 3
CIS 161	Introduction to PowerShell	4
CSS 205	Essentials of Network Penetration Testing	4
CSS 210	Basic Network Perimeter Protection	4
Elective	Arts/Human. Elective(s)	3

#### Minimum Credits Required for the Concentration or Option: 66

Computer Forensics (CSFC)

CST 118	Microsoft Command Line Fundamentals	2
CST 160	Computer Technology I	4
CST 165	Computer Technology II	4
CST 225	PC Networking	3
Elective	Speech Elective(s)	3
CIS 121	Linux/UNIX I: Fundamentals	4
CNT 201	Administering Microsoft Windows Client Operating Systems	3
CNT 211	Installing and Configuring Windows Server 2012	4
Thursday, February	/ 19, 2015 1:7:29 p.m.	Page 2 of 4

#### **Program Information Report**

Elective Elective	Math Elective(s) Writing Elective(s)	3 3
CNT 206 CNT 216 CST 270 Elective	Internetworking I - Fundamentals Internetworking II - Routers Data Recovery and Analysis Soc. Sci. Elective(s)	4 4 4 3
CIS 161 CST 275 CST 278 Elective Elective	Introduction to PowerShell Data Recovery and Forensics Computer Forensics for Mobile Devices Arts/Human. Elective(s) Nat. Sci. Elective(s)	4 4 3 3 3
	dits Required for the Concentration or Option: 65	(66 credits)
Linux Networ	k Operating System (LNOS)	(66 credits)
CST 118 CST 160 CST 165 CST 225 Elective	Microsoft Command Line Fundamentals Computer Technology I Computer Technology II PC Networking Speech Elective(s)	2 4 3 3
CIS 121 CNT 201 CNT 211 Elective Elective	Linux/UNIX I: Fundamentals Administering Microsoft Windows Client Operating Systems Installing and Configuring Windows Server 2012 Math Elective(s) Writing Elective(s)	4 3 4 3 3 3
CIS 206 CNT 206 CNT 216 Elective Elective	Linux/UNIX II: Basic System Administration, Networking, and Security Internetworking I - Fundamentals Internetworking II - Routers Nat. Sci. Elective(s) Soc. Sci. Elective(s)	4 4 4 3 3
CIS 161 CIS 221 CIS 208 Elective	Introduction to PowerShell Linux/UNIX Programming and Scripting I Linux/UNIX III: Intermediate System Administration, Networking, and Security Arts/Human. Elective(s)	4 4 4 3
Minimum Crea	lits Required for the Concentration or Option: 66	
Microsoft Net	work Operating System (MNOS)	(66 credits)
CST 118 CST 160 CST 165 CST 225 Elective	Microsoft Command Line Fundamentals Computer Technology I Computer Technology II PC Networking Speech Elective(s)	2 4 4 3 3
CIS 121 CNT 201 CNT 211 Elective Elective	Linux/UNIX I: Fundamentals Administering Microsoft Windows Client Operating Systems Installing and Configuring Windows Server 2012 Math Elective(s) Writing Elective(s)	4 3 4 3 3 3

Thursday, February 19, 2015 1:7:29 p.m.

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#### **Program Information Report**

CNT 206	Internetworking I - Fundamentals	4
CNT 216 BMG 205 or	Internetworking II - Routers Creating the Customer Experience	4
CST 270	Data Recovery and Analysis	4
Elective	Nat, Sci. Elective(s)	3
Elective	Soc. Sci. Elective(s)	3
CIS 161	Introduction to PowerShell	4
CNT 223 CNT 224	Administering Windows Server 2012 Configuring Advanced Windows Server 2012 Services	4 4
Elective	Arts/Human. Elective(s)	3
Minimum Cred	Its Required for the Concentration or Option: 66	
Local and Wide	e Area Networking (NETW)	(66 credits)
CST 118	Microsoft Command Line Fundamentals	2
CST 160 CST 165	Computer Technology I Computer Technology II	4 4
CST 225	PC Networking	3
Elective	Speech Elective(s)	3
CIS 121	Linux/UNIX I: Fundamentals	4
CNT 201	Administering Microsoft Windows Client Operating Systems	3
CNT 211	Installing and Configuring Windows Server 2012	4 3
Elective Elective	Math Elective(s) Writing Elective(s)	3
CNT 206	Internetworking I - Fundamentals	4
CNT 216	Internetworking II - Routers	4
BMG 205 or	Creating the Customer Experience	
CST 270	Data Recovery and Analysis	4
Elective Elective	Nat. Science Elective(s) Soc. Sci. Elective(s)	3 3
CIS 161	Introduction to PowerShell	<b></b> 4
CNT 226	Internetworking III - Switches	4
CNT 236	Internetworking IV - WANs	4
Elective	Arts/Human. Elective(s)	3
Minimum Cred	its Required for the Concentration or Option: 66	
Minimum Cred	its Required for the Program:	65

WASHTENAW COMMUNITY COLLEGE

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### **PROGRAM CHANGE OR DISCONTINUATION FORM**

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Program Code: Program APCSN	Name: Computer s and Networ	ystems E King	Effective Term: F2015
Division Code: Departm $\mathcal{BCT}$			
Directions:			× •
1. Attach the current program listing	from the WCC catalog or Wel	b site and indicate any changes	to be made.
2. Draw lines through any text that sh a separate sheet.	ould be deleted and write in a	dditions. Extensive narrative c	hanges can be included on
3. Check the boxes below for each ty new courses as part of the propose should be submitted at the same time	ed program change, must be ap	pproved separately using a Mast	
Requested Changes:			
Review Remove course(s): Add course(s): <u>CST 278 to</u> Program title (title was) Description include Type of award in NE Advisors MN05 Articulation information Show all changes on the attached page fin Rationale for proposed changes on E STudenTs who complete CNT 211 zre far more su Student success, we wis	rom the catalog. rom the catalog. r discontinuation: ete CST 225 before accessiful than the sh to change the pr	for phasing out courses) Other <u>Prerequisite</u> Course order mon ore enrolling in eit se who do not. To it rogram course list	irements rogram discontinuation on of students and timetable <u>change</u> dification ther CNT201 or improve to include
CST225 in the first so	emester. see rev	ierse side tor more	e- (over)
Financial/staffing/equipment/sp None	ace implications:		
List departments that have been a None. This only	consulted regarding their use affects Comput	e of this program. Ter NeZworking n	majors
Signatures: Reviewer	Print Name	Signature	Date
		the hand	1/7/2015
Initiator	John Trame	(	e a er
Department Chair	1/2/1	Kula la lluga	
Division Dean/Administrator	- white	ninberry Hours	<u> </u>
Vice President for Instruction	1515		2/14/15
President			
Do not write in shaded area. Entered in: E		8 IN IN	proval NA
Please submit completed form to the posting on the website.	Office of Curriculum and Asse	essment and email an electronic	: copy to <u>sjohn@wccnet.edu</u> for

. .

Finished 2/14/1502 mo logged 1/13/15 syl Office of Curriculum & Assessment

http://www.wccnet.edu/departments/curriculum

Change the Data Recovery Specialty To Dat Computer Forensics will more accurately describe the program. The Computer Forensics option needs the addition of CST 278 to provide the proper level of skills for graduates of this program.

BMG 205 and CST 270 offer students additional options to gain complimentary skills (interpersonal / Networking) that match offerings in the certificate program (per employers).

#### Computer Systems and Networking (APCSN) Associate in Applied Science Degree Program Effective Term: Fall 2013

In this program students will learn about the latest desktop, server, and networking technologies. This program has a core of hardware, operating system and scripting that all students must complete. In addition to the common core subjects, students will select a specialized track in one of the following areas: Local and Wide Area Networking, Microsoft Network Operating Systems, Linux Network Operating Systems, Computer and Network Security, or Data Recovery.

#### Articulation:

Davenport University, Bachelor degree; Eastern Michigan University, several BS degrees.

Copies can be obtained from the Counseling Office, a program advisor, or from the Curriculum and Assessment Office Web site: http://www.wccnet.edu/departments/curriculum/articulation.php?levelone=colleges.

#### Minimum Concentration Credits Required for the Program: Select a concentration.

**Computer Systems and Networking Concentrations** 

61

#### Computer and Network Security (CSEC) (65 credits) First Semester CST 118 Microsoft Command Line Fundamentals 2 CST 160 Computer Technology I 4 CST 165 Computer Technology II 4 Math Elective(s) 3 Speech Elective(s) 3 Second Semester 10.0 CIS 121 Linux/UNIX I: Fundamentals 3 CNT 201 Administering Microsoft Windows Client Operating Systems 3 CNT 211 Installing and Configuring Windows Server 2012 4 CST 225 PC Networking 3 Writing Elective(s) 3 Third Semester CNT 206 Internetworking I - Fundamentals 4 **CNT 216** Internetworking II - Routers 4 CSS 200 Computer Security II 4 Nat, Sci. Elective(s) 3 Soc. Sci. Elective(s) 3 Fourth Semester Introduction to PowerShell CIS 161 4 CSS 205 Computer Security III 4 CSS 210 Computer Security IV 4 Arts/Human. Elective(s) 3

#### Minimum Credits Required for the Concentration or Option: 65

Data Recovery (DATR)

First Semeste CST 118 CST 160 CST 165	Microsoft Command Line Fundamentals Computer Technology I Computer Technology II Math Elective(s) Speech Elective(s)	2 4 3 3
Second Seme CIS 121 CNT 201 CNT 211	ster Linux/UNIX I: Fundamentals Administering Microsoft Windows Client Operating Systems Installing and Configuring Windows Server 2012	3 3 4

Wednesday, April 3, 2013 8:6:56 a.m.

#### (61 credits)

### **Program Information Report**

Third Semester CNT 206 Internetworking I - Fundamentals	<b>(12 credits)</b> 4
CNT 216 Internetworking II - Routers Nat. Sci. Elective(s) Soc. Sci. Elective(s)	4 3 3
Fourth Semester         CIS 161       Introduction to PowerShell         CNT 223       Administering Windows Server 2012         CNT 224       Configuring Advanced Windows Server 2012 S         Arts/Human. Elective(s)	ervices 4 3
Minimum Credits Required for the Concentration or Option	n: 61
Local and Wide Area Networking (NETW)	(61 credits)
First Semester       Microsoft Command Line Fundamentals         CST 118       Microsoft Command Line Fundamentals         CST 160       Computer Technology I         CST 165       Computer Technology II         Math Elective(s)       Speech Elective(s)	2 4 4 3 3
Second Semester       Processes         CIS 121       Linux/UNIX I: Fundamentals         CNT 201       Administering Microsoft Windows Client Operat         CNT 211       Installing and Configuring Windows Server 201         CST 225       PC Networking Writing Elective(s)	ting Systems 3
Third Semester         CNT 206       Internetworking I - Fundamentals         CNT 216       Internetworking II - Routers         Nat. Science Elective(s)       Soc. Sci. Elective(s)	4 4 3 3
Fourth SemesterCIS 161Introduction to PowerShellCNT 226Internetworking III - SwitchesCNT 236Internetworking IV - WANsArts/Human. Elective(s)	4 4 4 3
Minimum Credits Required for the Concentration or Option	7: 61

Minimum Credits Required for the Program:

61

	R DISCONTINUATION I	Form	(		<b><i>TY</i> COLLEGE</b>
APC Program Cod <del>e: APCN</del>	CSN #MProgram Name: <i>Co</i>		ems and working	Effective 7	[erm: F 20]
Division Code:	Department: Comp	outer Inst	ruction		
Directions:					
	ogram listing from the WC ny text that should be delet	-	•	0	
new courses as part o	ow for each type of change of the proposed program ch at the same time as the prop	ange, must be app	roved separately using		
Requested Changes:	·····	See	Atlached		
Description Type of award Advisors Articulation informat		-	Continuing eligibilit Program outcomes Accreditation inform Discontinuation (at plan that includes th for phasing out cou	mation tach program dis ransition of stude	
show all changes on the a	ttached page from the catalog	•			
Rationale for propose	d changes or discontinua	ution:		Acac for	~ //
Rationale for propose The new progra networking mzj Financial/staffing/eq		uniform co entration	re set of cou in specific su	orses for obsets of	zll neTworking
Rationale for propose The new progra networking may Financial/staffing/eq None List departments that	d changes or discontinua am will provide a iors, with a conc	ions:	in specific su	erses for a	z    neTworking
Rationale for proposed The Haw progra networking maj Financial/staffing/eq None List departments that None Bignatures:	d changes or discontinua am will provide Z jors, with z conc uipment/space implication have been consulted reg	arding their use o	of this program.	bsets of	neZworking
Rationale for proposed The Herm progra networking maj Financial/staffing/eq None List departments that None Signatures: Reviewer	d changes or discontinua am will provide Z jors, with z conc uipment/space implication have been consulted reg	t Name	in specific su	bsets of	Date
Rationale for proposed The Haw progra networking maj Financial/staffing/eq None List departments that None Bignatures: Reviewer nitiator	d changes or discontinua am will provide Z jors, with z conc uipment/space implication have been consulted reg Prin John 7	t Name	of this program.	bsets of	neZworking
Rationale for proposed The Herm progra networking maj Financial/staffing/eq None List departments that None Signatures: Reviewer Initiator Department Chair	d changes or discontinua am will provide Z jors, with z conc uipment/space implication have been consulted reg Prin John 7 John 7	arding their use of the Name	of this program.	bsets of	neZworKing Date
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Rationale for proposed The Herm progra networking maj Financial/staffing/eq None List departments that Mone Signatures: Reviewer Initiator Department Chair	d changes or discontinua 2m will provide 2 jors, with 2 conc juipment/space implication have been consulted reg Prin John 7 John 7 trator Roseman william	arding their use of rame ram	of this program. Signatur Solutions Solutions	bsets of	Date

Office of Curriculum & Assessment

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## NETW

Semester 1

CST 118

CST 160

CST 165

Elective

Elective

Semester 2 CIS 121

CST 225

CNT 201

CNT 211

Elective

Semester 3

CNT 206

CNT 216

Elective

Elective

Semester 4

CIS 161

Elective

CNT 226

CNT 236

Computer Systems Networking

Local and Wide Area Networking

Internetworking IV - WANs

Internetworking III -

**Program Total** 

Switches

## MNOS

ystems Networking						
Wide Area Networking		Microsoft N Semester 1	letwork Operating Systen	1	Linux Net Semester 1	
Microsoft Command Line			Microsoft Command			Ν
Fundamentals	2	CST 118	Line Fundamentals	2	CST 118	F
Computer Technology I	4	CST 160	Computer Technology I	4	CST 160	С
Computer Technology II	4	CST 165	Computer Technology II	4	CST 165	С
Mathmatics	3	Elective	Mathmatics	3	Elective	Ν
Speech	3	Elective	Speech	3	Elective	S
1	16			16		
		Semester 2			Semester 2	2
			Linux/Unix I:			L
Linux/Unix I: Fundamentals	3	CIS 121	Fundamentals	3	CIS 121	F
PC Networking	3	CST 225	PC Networking	3	CST 225	Р
			Administering Windows			
Administering Windows			Client Operating			A
Client Operating Systems	3	CNT 201	Systems	3	CNT 201	C
			Installing and			
Installing and Configuring			Configuring Windows			h
Windows Server 2012	4	CNT 211	Server 2012	4	CNT 211	V
Writing	3	Elective	Writing	3	Elective	v
	16			16		
		Semester 3			Semester 3	3
Internetworking 1:			Internetworking I:			I
Fundamentals	4	CNT 206	Fundamentals	4	CNT 206	F
			Internetworking II:			I
Internetworking II: Routers	4	CNT 216	Routers	4	CNT 216	R
Social Science	3	Elective	Social Science	3	Elective	S
Natural Science	3	Elective	Natural Science	3	Elective	N
						L
						S
					CIS 206	N
	14			14		
		Semester 4			Semester 4	4
			Introduction to			
Introduction to PowerShell	4	CIS 161	PowerShell	4	CIS 161	I
Arts and Humanities	3	Elective	Arts and Humanities	3	Elective	A

Administering Windows

Configuring Advanced

Windows Server 2012

Server 2012

**Program Total** 

4 CNT 223

4 CNT 224

15

61

	ork Op System
nester 1	Misses & Commend Line
T 110	Microsoft Command Line
T 118	Fundamentals
T 160	Computer Technology I
T 165	Computer Technology II
ctive	Mathmatics
ective	Speech
nester 2	
nester a	Linux/Unix I:
5 121	Fundamentals
T 225	PC Networking
1 223	re Networking
	Administering Windows
T 201	Client Operating Systems
	Installing and Configuring
T 211	Windows Server 2012
ctive	Writing
mester 3	
	Internetworking I:
T 206	Fundamentals
	Internetworking II:
T 216	Routers
ective	Social Science
ective	Natural Science
	Linus/UNIX II: Basic
	System Administration,
S 206	Networking and Sedurity
mester 4	
0.171	Introduction to Down Objil
S 161	Introduction to PowerShell
ective	Arts and Humanities
	Linux/UNIX III:

Intermediate System

and Security

and Scripting I

**Program Total** 

4 CIS 208

4 CIS 221

15

61

Administratin, Networking

Linux/UNIX Programming

LNDS

CSEC

62

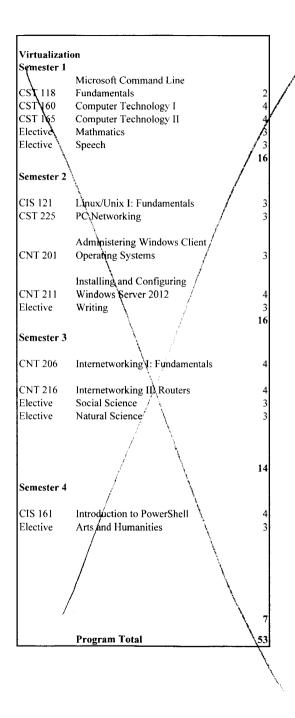
	Computer a Semester 1	and Network Security		Data Recove Semester 1	ery	
		Microsoft Command Line			Microsoft Command	
2	CST 118	Fundamentals	2	CST 118	Line Fundamentals	2
4	CST 160	Computer Technology I	4	CST 160	Computer Technology I	4
4	CST 165	Computer Technology II	4	CST 165	Computer Technology	4
3	Elective	Mathmatics	3	Elective	Mathmatics	3
3	Elective	Speech	3	Elective	Speech	3
16			16			16
	Semester 2			Semester 2		
		Linux/Unix I:			Linux/Unix I:	
3	CIS 121	Fundamentals	3	CIS 121	Fundamentals	3
3	CST 225	PC Networking	3	CST 225	PC Networking	3
					Administering Windows	
		Administering Windows			Client Operating	
3	CNT 201	Client Operating Systems	3	CNT 201	Systems	3
		Installing and			Installing and	
		Configuring Windows			Configuring Windows	
4	CNT 211	Server 2012	4	CNT 211	Server 2012	4
3	Elective	Writing	3	Elective	Writing	3
16			16			16
	Semester 3			Semester 3		
		Internetworking I:			Internetworking I:	
4	CNT 206	Fundamentals	4	CNT 206	Fundamentals	4
		Internetworking II:			Internetworking II:	
4	CNT 216	Routers	4	CNT 216	Routers	4
3	Elective	Social Science	3	Elective	Social Science	3
3	Elective	Natural Science	3			
					Data Recovery and	
3	CSS 200	Computer Security II	4	CST 270	Analysis	4
17	035200	Computer Security II	18	031270	Analysis	15
						1.5
	Semester 4			Semester 4		
	CIC 1/1	Introduction to		010.1/1	Introduction to	
4	CIS 161	PowerShell	4	CIS 161	PowerShell	4
3	Elective	Arts and Humanities	3	Elective	Arts and Humanities	3
					Data Recovery and	
3	CSS 205	Computer Security III	4	CST 275	Forensics	4
3	CSS 210	Computer Security IV	4	Elective	Natural Science	3
13			15			14

65

**Program Total** 

61

**Program Total** 



## **Computer Systems and Networking**

## **Associate of Applied Science Degree**

#### **Program Description**

- COLE

In this program students will learn about the latest desktop, server, and networking technologies. This program has a concentration of hardware, operating system and scripting that all students must complete. In addition to the common core subjects, students will select a specialized track in one of the following areas: Local and Wide Area Networking, Microsoft Network Operating Systems, Linux Network Operating Systems, Computer and Network Security, Data Recovery, or Virtualization.

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#### Advisors

Michael Galea, Philip Geyer, James Lewis, William Reichert, John Trame

Requirements

New New

First Semester		
Class	Title	Credit Hours
CST 118	Microsoft Command Line Fundamentals	2
• CST 160	Computer Technology I	4
• CST 165	Computer Technology II	4
Elective	Computer Literacy	3-
Elective	Speech	3
TOTAL		16
Second Semester		
Class	Title	Credit Hours
CIS 121	Linux/Unix I: Fundamentals	3
CST 225	PC Networking	3
CNT 201	Administering Windows Client Operating Systems	3
CNT 211	Installing and Configuring Windows Server 2012	4
Elective	Writing	3
TOTAL		16

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Third and fourth semesters will vary, depending on the chosen specialty.

	Third Semester			
	Class	Title	Credit Hours	
	CNT 206	Internetworking I: Fundamentals	4	All Students
Γ	CNT 216	Internetworking II: Routers	4	All Students
	Elective	Math	3 - 4	All Students
Γ	Elective	Social and Behavioral Science	3	All Students
lew ew	CIS 206	Linux/UNIX II: Basic System Administration, Networking, and Security	3	Linux Students only
ew [	CSS 200	Computer Security II	4	Security Students only
	CST 270	Data Recovery and Analysis	4	Data Recovery Students only
	TOTAL		14 - 19	_
	Fourth Semester		Credit	
	Class	Title	Hours	
=w [	CIS 161	Introduction to PowerShell	4	All Students
	Elective	Arts and Humanities	3	All Students
	Elective	Natural Sciences	3 - 4	All Students
	CNT 226	Internetworking III - Switches	4	Cisco Students only
	CNT 236	Internetworking IV - WANs	4	Cisco Students only
	CNT 223	Administering Windows Server 2012	4	Microsoft Students only
	CNT 224	Configuring Advanced Windows Server 2012	4	Microsoft Students only
w	CIS 208	Linux/UNIX III: Intermediate System Administration, Networking, and Security	3	Linux Students only
w   w	CIS 221	Linux/Unix Programming and Scripting I	3	Linux Students only
w	CSS 205	Computer Security III	4	Security Students only
~	CSS 210	Computer Security IV	4	Security Students only
v [	CST 275	Data Recovery and Forensics	4	Data Recovery Students only
	TOTAL		16 - 18	

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# Computer Networking (APCNTM)

Associate in Applied Science Degree

2010 - 20112011 - 20122012 - 2013

# Description

Some employers require or prefer employees to have an associate degree as a condition for employment or for advancement. Students can earn an Associate in Applied Science Degree in Computer. Networking by completing the requirements listed.

## Articulation

Davenport University, Bachelor degree; Eastern Michigan University, several BS degrees. Copies can be obtained from the Counseling Office, a program advisor, or from the Curriculum and Assessment Office Web site:

www.wccnet.edu/departments/curriculum/articulation.php?levelone =colleges.

# Contact Information

Business/Computer Technologies

Computer Instruction Dept

Department

Michael Galea, Philip Geyer, John Trame, William Reichert, Requirements James Lewis *Requirements* 

## First Somostor

Luzi Dem	estel
Class	Title
Elective(	Computer and Information Literacy
S)	
CIS 121	Linux/UNIX I: Fundamentals
CPS 120	<ul> <li>Introduction to Computer Science</li> </ul>
CST 118	Microsoft Command Line Fundamentals
Total	
Second S	emester
Class	Title
Elective(	Speech
S)	
Elective(	Writing
s)	

Divisior

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Total

1

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## **Total Credits Required**

61 - 68

	DISCONTINUATION FORM	WASHTENAW COM	MUNITI COLLEGE
Program Code: APCNTM	Program Name: Computer Network	ing Effe 2012	ective Term: Winter 2
Division Code: BCTD	Department: CIS		
Directions:			
	ram listing from the WCC catalog or Web text that should be deleted and write in a	, ,	
new courses as part of t	for each type of change being proposed. he proposed program change, must be ap the same time as the program change forr	proved separately using a Master	
Requested Changes:			
		<ul> <li>Program admission requirem</li> <li>Continuing eligibility require</li> <li>Program outcomes</li> <li>Accreditation information</li> <li>Discontinuation (attach prog plan that includes transition for phasing out courses)</li> <li>Other</li></ul>	ments gram discontinuation of students and timetal
Show all changes on the atta	<u> </u>		
	changes or discontinuation:		
ELE 299 Customer Relat Experience. Co-op oppo	tions has been discontinued and replaced ortunities for this program are no longer b mber than ELE 174 for Co-op. CSS 270 (	eing managed by the ELE Depar	rtment, and CST 174 is
ELE 299 Customer Relat Experience. Co-op oppo more accurate course nur Data Recovery and Analy Financial/staffing/equi None.	tions has been discontinued and replaced ortunities for this program are no longer b mber than ELE 174 for Co-op. CSS 270 ( asis. pment/space implications:	eing managed by the ELE Depar Computer Security VII (Data Rec	rtment, and CST 174 is
ELE 299 Customer Relat Experience. Co-op oppo more accurate course nur Data Recovery and Analy Financial/staffing/equi None.	tions has been discontinued and replaced ortunities for this program are no longer b mber than ELE 174 for Co-op. CSS 270 ( 7515.	eing managed by the ELE Depar Computer Security VII (Data Rec	rtment, and CST 174 is
ELE 299 Customer Relat Experience. Co-op opport more accurate course nur Data Recovery and Analy Financial/staffing/equi None. List departments that he CIS Signatures:	tions has been discontinued and replaced ortunities for this program are no longer b mber than ELE 174 for Co-op. CSS 270 ( 75 is. pment/space implications: ave been consulted regarding their use	eing managed by the ELE Depar Computer Security VII (Data Rec e of this program.	rtment, and CST 174 is overy I) is now CST
ELE 299 Customer Relat Experience. Co-op oppo more accurate course nur Data Recovery and Analy Financial/staffing/equi None. List departments that has CIS	tions has been discontinued and replaced ortunities for this program are no longer b mber than ELE 174 for Co-op. CSS 270 ( ysis. pment/space implications: ave been consulted regarding their use Print Name	eing managed by the ELE Depar Computer Security VII (Data Rec e of this program.	rtment, and CST 174 is overy I) is now CST
ELE 299 Customer Relat Experience. Co-op opport more accurate course nur Data Recovery and Analy Financial/staffing/equi None. List departments that he CIS Signatures: Reviewer	tions has been discontinued and replaced ortunities for this program are no longer b mber than ELE 174 for Co-op. CSS 270 ( 75 is. pment/space implications: ave been consulted regarding their use	eing managed by the ELE Depar Computer Security VII (Data Rec e of this program.	rtment, and CST 174 is overy I) is now CST
ELE 299 Customer Relat Experience. Co-op opport more accurate course nur Data Recovery and Analy Financial/staffing/equi None. List departments that he CIS Signatures: Reviewer Initiator	tions has been discontinued and replaced ortunities for this program are no longer b mber than ELE 174 for Co-op. CSS 270 ( ave been consulted regarding their use Print Name John Trame Clarence Hasselbach	eing managed by the ELE Depar Computer Security VII (Data Rec e of this program.	rtment, and CST 174 is overy I) is now CST Date
ELE 299 Customer Relat Experience. Co-op oppor more accurate course nur Data Recovery and Analy Financial/staffing/equi None. List departments that he CIS Signatures: Reviewer Initiator Department Chair	tions has been discontinued and replaced ortunities for this program are no longer b mber than ELE 174 for Co-op. CSS 270 ( ave been consulted regarding their use Print Name John Trame Clarence Hasselbach tor Rosemary Wilson	eing managed by the ELE Depar Computer Security VII (Data Rec e of this program.	rtment, and CST 174 is overy I) is now CST Date

posting on the website. 1911 logged 11/30/115/V Office of Curriculum & Assessment

Washtenaw Community College. **Certificates and Degrees.** http://www4.wccnet.edu/academicinfo/creditofferings/programs/degree.php?code=APCNTM

Return to web format »

#### Computer Networking (APCNTM)

Associate in Applied Science Degree

Program requirements shown below are for catalog year: 2011 - 2012 • Change Year

#### **Description:**

Some employers require or prefer employees to have an associate degree as a condition for employment or for advancement. Students can earn an Associate in Applied Science Degree in Computer Networking by completing the requirements listed.

#### **Contact Information:**

Division: Business and Computer Technologies School: School of Information Technology Department: Computer Instruction Dept Advisors: Michael Galea, Philip Geyer, Roland Meade, John Trame

#### **Articulation:**

Davenport University, Bachelor degree; Eastern Michigan University, several BS degrees.

Copies can be obtained from the Counseling Office, a program advisor, or from the Curriculum and Assessment Office Web site: http://www.wccnet.edu/departments/curriculum/articulation.php? levelone=colleges

	General Educ	ation Requirements	(21 - 24 Credits)
	Writing	Elective(s)	3 - 4
	Speech	Elective(s)	3
	Math	Elective(s)	3 - 4
	<u>Nat. Sci.</u>	Elective(s)	3 - 4
	Soc. Sci.	Elective(s)	3
	Arts/Hum.	Elective(s)	3
	Computer Lit.	Elective(s)	3
			Чч
	Major/Area R	lequirements	(40 - 🌠 Credits)
		Complete the Computer Systems Technology Certificate (17 credits).	0
	<u>CST 118</u>	MS Command Line Fundamentals	2
	<u>CST 150</u>	Computer Systems Technology I	5
	<u>CST 155</u>	Computer Systems Technology II	5
	<u>CST 225</u>	PC Networking	3
CSTITY	<b>ELE 174</b> or	Co-op Education I	
BM6205	ELE 299 OR	Eustomer Relations CREATING TIK CUSTOMEN EXPERIENCE	1- <b>5-4</b>
LA16209	CST 270 Elective:	Complete the Computer Networking Academy I Advanced Certificate (16 credits). <u>CNT 206, CNT 216, CNT 226</u> and <u>CNT 236</u>	0
		or	. 0
	Elective:	Complete the Computer Networking Operating Systems I Advanced Certificate (15 credits). CNT 201, CNT 211, CNT 223 and CNT 224	15 - 16
	<u>CIS 121</u>	Linux/UNIX I: Fundamentals	3

WCC Certificates and Degrees: Computer Networking Associate in Applied Science Deg... Page 2 of 2

CPS 120	Introduction to Computer Science	3
Elective:	Complete an additional 3 credits to reach a minimum of 60 credit hours.	3

#### Minimum Credits Required for the Program:

61 - **ș** Credits

This website is for informational purposes only and is not to be construed as a binding offer or contract between WCC and the student. The information presented here is believed accurate, but is NOT guaranteed and is subject to change without notice.

For official information, see an Advisor.

Return to web format >

#### School of Information Technology

The School of Information Technology gathers the diverse areas that make up the computer technology of today. From basic programming languages to systems development through networking, these programs provide the core of information technology. Develop skills in computer networking or programming in the growing field of applied information technology.

Washtenaw Community College offers programs at several levels for students who want to begin new careers, or advance in their existing careers. The first level is the certificate, which can vary from nine to thirty-six credits, depending on the field. Certificates generally prepare students for entry-level jobs.

After completing a certificate, students can progress to the next level, the advanced certificate. The credit hours required for these programs also vary. This type of certificate provides a more specialized level of skill development, and often allows students to upgrade their positions at their places of employment.

The next level, an Associate in Applied Science, is available for some programs. For some career fields, it is possible to earn a certificate, advanced certificate, and an Associate in Applied Science degree in the same field. In these cases, the credit hours from the certificate and advanced certificate can be applied to the credit hours needed for the Associate in Applied Science degree.

Alternatively, students can earn an AAS in Occupational Studies by completing a certificate, advanced certificate and General Education requirements.

#### Networking

Develop and manage computer networks as a network administrator/engineer.

#### Computer Networking (APCNTM)

Associate in Applied Science Degree

Program Effective Term: Fail 2012

Some employers require or prefer employees to have an associate degree as a condition for employment or for advancement. Students can earn an Associate in Applied Science Degree in Computer Networking by completing the requirements listed.

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Writing Speech Math Nat. Sci. Soc. Sci. Arts/Human. Computer Lit.	Elective(s) Elective(s) Elective(s) Elective(s) Elective(s) Elective(s) Elective(s)	3-4 3-4 3-4 3-4 3 3 3 3
*		and the states
CST 118 CST 150 CST 155 CST 225 BMG 205 or	Complete the Computer Systems Technology Certificate (17 credits). MS Command Line Fundamentals Computer Systems Technology I Computer Systems Technology II PC Networking Creating the Customer Experience	2 5 5 3
CST 174 or CST 270 Elective	CST Co-op I Data Recovery and Analysis Complete the Computer Networking Academy I Advanced Certificate (16 credits). CNT 206, CNT 216, CNT 226 and CNT 236 or	1-4
Elective CIS 121 CPS 120 Elective	Complete the Computer Networking Operating Systems I Advanced Certificate (15 credits). CNT 201, CNT 211, CNT 223 and CNT 224 Linux/UNIX I: Fundamentals Introduction to Computer Science Complete an additional 3 credits to reach a minimum of 60 credit hours.	15-16 3 3 3

Monday, December 19, 2011 3:3:28 p.m.

#### Program Information Report

Minimum Credits Required for the Program:

61

PROGRAM CHANGE OR	DISCONTINUATION FORM	WASHTENAW COMMU	NITY COLLEGE
Program Code: APCNTM	Program Name: Computer Network Applied Science	king Associate In Effecti	ve Term: W2012
Division Code: BCT	Department: Computer Instruction		
Directions:			
1. Attach the current prog	gram listing from the WCC catalog or We	b site and indicate any changes to be	made.
2. Draw lines through any a separate sheet.	y text that should be deleted and write in	additions. Extensive narrative change	es can be included on
3. Check the boxes below	v for each type of change being proposed	. Changes to courses, discontinuing a	course, or adding
	the proposed program change, must be a		
should be submitted at	the same time as the program change for	rm.	
<b>Requested Changes:</b>			
$\square Review$	ELE 299; reduce electives	Program admission requirement	
	BMG 205	Continuing eligibility requirement Program outcomes	its
Program title (title was	)	Accreditation information	
Description		Discontinuation (attach program	discontinuation
Type of award		plan that includes transition of s	tudents and timetable
Advisors		for phasing out courses)	
Articulation information	nc	for phasing out courses) ☐Other	
Show all changes on the att	ached page from the catalog.		
Rationale for proposed	changes or discontinuation: Istomer Relations requirement to BMG 2		N ., G
	inded, generic business approach to the s		, to provide the
students with a more roo	inclu, generie business approach to the s		lana C≁
			80
			õ
		· · · · · · · · · · · · · · · · · · ·	
Financial/staffing/equ	ipment/space implications:		
None			
*			
	have been consulted regarding their us		-1
programs, which are both	the Computer Systems Technology certifi	leate, and Computer Networking Asso	ciate degree
programs, which are both	i in our department.		
Signatures:			
Reviewer	Print Name	Signature	Date
Initiator	John Trame	John rame	3/30/2011
Department Chair	Charence Hauselbach	Clam Handbard	4/19/11
Division Dean/Administr	ator Josemary (1) ilson	Jevenang / for	- 4/21/11
Vice President for Instruct	tion Sourt BLACKLAC	1 South	7-14-11
President		Subscription and the	

Do not write in shaded area. Entered in: Banner\_

Do not write in shaded area. Entered in: Banner\_\_\_\_\_ C&A Database 118/11 Log File 7/25/115/Board Approval \_\_\_\_\_ 7/18/11/8/2 Please submit completed form to the Office of Curriculum and Assessment and email an electronic copy to sjohn@wccnet.edu for posting on the website.

J.

#### School of Information Technology

The School of Information Technology gathers the diverse areas that make up the computer technology of today. From basic programming languages to systems development through networking, these programs provide the core of information technology. Develop skills in computer networking or programming in the growing field of applied information technology.

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#### Networking

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#### Computer Networking (APCNTM)

Associate in Applied Science Degree

#### Program Effective Term: Fall 2012

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Géneral Educa	tion Requirements	(21 credits)
Writing	Elective(s)	3-4
Speech	Elective(s)	3
Math	Elective(s)	3-4
Nat. Sci.	Elective(s)	3-4
Soc. Sci.	Elective(s)	3
Arts/Human.	Elective(s)	3
Computer Lit.	Elective(s)	3
Major/Area Re	quirements Complete the Computer Systems Technology Certificate (17 credits).	<b>dunce</b> (40/credits)
CST 118	MS Command Line Fundamentals	2
CST 150	Computer Systems Technology I	- 5
CST 155	Computer Systems Technology II	5
CST 225	PC Networking	3
ELE 174 or	ELE Co-op Education I	
BMG 205	Creating the Customer Experience	1-3
Elective	Complete the Computer Networking Academy I Advanced Certificate (16 credits). CNT 206, CNT 216, CNT 226 and CNT 236	
	or	
Elective	Complete the Computer Networking Operating Systems I Advanced Certificate (15 credits). CNT 201, CNT 211, CNT 223 and CNT 224	15-16
CIS 121	Linux/UNIX I: Fundamentals	3
CPS 120	Introduction to Computer Science	3
Elective	Complete an additional 3 credits to reach a minimum of 60 credit hours.	3

2

**Program Information Report** 

Minimum Credits Required for the Program:

Page 2 of 2

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### WASHTENAW COMMUNITY COLLEGE

# PROGRAM CHANGE FORM

<b>Program Code:</b>	Program Name:	E	ffective Term:		
<u>APCNTM</u>	Computer Networking	<u>2</u> (	<u> 20409</u>		
Directions:					
1. Attach the current program listing from the WCC catalog and indicate any changes to be made.					
2. Draw lines through an a separate sheet.	y text that should be deleted and write i	in additions. Extensive narrative changes	can be included on		
		ed. Changes to courses, discontinuing a c			
		e approved separately using a Course Syll	abus Form, but		
· · · · · · · · · · · · · · · · · · ·	the same time as the program change	torm.	······································		
Requested Changes:					
$ \boxed{ Remove 5 course()} $	3)	Advisors			
Add <u>4</u> course(s)	credits_60After changes_60	Articulation information	rements		
Title (title was		) Continuing eligibility requ			
Description		Program outcomes			
Show all changes on the att	ached page from the catalog.	Other	·······		
Rationale for proposed					
		r Networking Degree requires successful Systems Technology program is being cha			
		age add CIS 121 and CPS 120 to the prog			
these courses, the progra	am falls below the 60 credit hour thresh	old for an AAS degree).			
	ipment/space implications:				
No impact					
List departments that h	nave been consulted regarding the u	se of this program.			
ELE	0 0	1 0			
• • • • • • • • • • • • • • • • • • •					
Signatures:					
Reviewer	Print Name	Signature	Date		
Program Change Initiator	Philip Geyer	Muly + Dyn	3-26-04 KA		
Department Chair	Philip Geyer	Mulp 7 Days	3-26-04 RH 3-26-04 4.10		
Division Dean/Administr	ator Rosemary Wilson	Tegeman Alepa	3-51704		
Vice President for Instruct	tion Roger Palay	Mage Ma Jakay	4/3/04		
Please submit complete	ed form to the Office of Curriculum	and Articulation Services.	., , ,		
Office of Curriculum & Articul	ation Services	Program Char	ge Form 8-2003		
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n./		MAY U	6 7534		
Access Program File	Log <u>+</u> / <u>lb</u>	Copied and Returned			

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#### Computer Networking (APCNTM) Associate in Applied Science Degree

#### Program Effective Term: Fall 2004

Some employers require or prefer employees to have an associate degree as a condition for employment or for advancement. Students can earn an Associate in Applied Science Degree in Computer Networking by completing the requirements listed below.

Continuing Eligibility Requirements: Students must demonstrate basic computer literacy skills by successfully passing the Computer and Information Literacy Test. The test may be taken at any point during the program, but must be completed before graduating.

General E	ducation Requirements	(18 credits)
Writing	Elective(s)	3-4
Speech	Elective(s)	3
Math	Elective(s)	3-4
Nat. Sci.	Elective(s)	3-4
Soc. Sci.	Elective(s)	3
Arts/Human.	Elective(s)	3
Major/Are	a Requirements	(42 credits)
	Complete the Computer Systems Technology Certificate (17 credits).	
CST 118	MC Command Line Fundamentals	2
CST 150	Computer Systems Technology I	5
CST 155	Computer Systems Technology II	5
CST 225	Computer Systems Technology III	3
	Complete ELE 174 ELE Co-op Education I or ELE 299 Customer Relations	2
	Complete the Computer Networking Academy I Advanced Certificate (16 credits).	
	CNT 206, CNT 216, CNT 226, and CNT 236 or	
	Complete the Computer Networking Operating Systems I Advanced Certificate (14 credits). CNT 201, CNT 211, CNT 221, and CNT 224	14-16
CIS 121	Linux/UNIX Fundamentals	3
CPS 120	Intro to Computer Science	3
	Complete 1-5 additional credits to bring the total credits	io 60 5

Minimum Credits Required for the Program:

60

## Washtenaw Community College Program Change Request Form

	Program Change Reque	
Program Code: APCNTM	Program Name: Associate Degree - Comp	
lines through anything that	should be removed and write in any addition the boxes below for each type of change bei	any changes that you would like to make. Draw ns. Extensive narrative changes may be included ng proposed. If you are making changes to courses or must be approved separately using a Course-Syllabus
1. Requested Changes:		
Remove Course(s)         Add Course(s)         Increase/Decrease Total Cr         Course Sequence         Name (new name         Description         Show all changes on the attact		Advisors Articulation Agreements Program Admission Requirements/Procedures Continuing Eligibility Requirements Footnotes Other <u>Add in Microsoft Certificate as an</u> <u>alternate to the CISCO Certificate to obtain this</u> Associate Degree.
Networking I (APCNTM), way to achieve this degree two alternatives correctly, request that the new catalo Note: The changes as pro- Microsoft Program planne existing Microsoft Program	, the option for the Computer Networking Operat was inadvertantly left off. The diagrams shown with a path shown for either certificate. This Pro- og be updated with this correction. posed on the attached page and on the sheet attact d to go into effect this fall. These changes, (form minto two certificates (similar to CISCO). The f	Associate in Applied Science Degree for Computer ing Systems (CVCNOS) Certificate as an alternative on page 96 of the catalog (see attached) does show the ogram Change Request Form is being submitted to hed showing the diagram, reflect program changes to as which have been submitted previously), split the first certificate, which is part of the Associate Degree, tion of the total hours (to bring the total to 60) had to be r the CISCO or Microsoft Program is chosen.
3. Financial/Staffing/Eq	uipment/Space Implications: NOT APPLICA	BLE
	sulted with all departments that may be impace nd CIS Department faculty	eted? Yes 🛛 No 🗌 NA 🗌
Signatures: Reviewer	Print Name	Signature Date
Program Change Initiator:	WonReichent U	01 25 02
Department Chair:	GARY DOWNEN X	ang 12. Lowren 2/12/02
Division Dean:	Jegensen Kilson	france helpor 715702
VP, Instruction/Student Serv	ices: ///	Auxfoller 518'

Access Program File Log \_\_\_\_\_\_ Copies: Initiator, Department Chair, Dean, Curriculum File Curriculum and Articulation Services:

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Curriculum Development/Forms/Programs/Program Change Form 1/9/01

Document Code: Degree-Change.doc Office of Surfaulum & A Sudation Services

Precessed

Copied and Repimed \_\_\_\_\_\_ New Listing o: Counseling; Admissions . . .

## **Computer Studies**

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### Computer Networking (APCNTM)

Associate in Applied Science Degree

#### Program Effective Term: Fall 2002

Some employers require or prefer employees to have an associate degree as a condition for employment or for advancement. You can earn an Associate in Applied Science Degree in Computer Networking by completing the requirements listed below.

#### **Business and Computer Technologies Division Computer Instruction Department and Electronics Department**

Advisors: Michael Galea, Phil Geyer, Roland Meade, John Rinn, John Trame

Continuing Eligibility Criteria: Students must demonstrate basic computer literacy skills by successfully passing the Computer and Information Literacy Test. The test may be taken at any point during the program, but must be completed before graduating.

#### Requirements

· 1.	Complete the Certificate in Computer Systems Technology (CTCSTC)	25
2.	Complete the Advanced Certificate in Computer Networking Academy I (CVCNT) or Complete the Advanced Certificate in Computer Networking Operating Systems I (CVCNOS)	14-16
3.	Complete General Education Requirements for the AAS Degree	18-21
4.	Complete 1-3 additional credits to bring the total to 60 credits	3
Minimum Credits Required for the Program: 6		

## Washtenaw Community College Program Change Request Form

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Effective Term: Fall 2001

Program Code: APCNTM	Program Name: Computer Netv	vorking	Effective Term. Fail 2001
A program sheet for the ab submitted for this year. Plea Draw lines through anythin	ove named program is attached. It ase review the program sheet care g that should be removed and writ Check the boxes below for each t be approved separately, using a Con-	te in any additions. Extensive na type of change being proposed.	arrative changes may be If courses are being changed as
1. Requested Changes:			
<ul> <li>Remove Course(s)</li> <li>Add Course(s)</li> <li>Increase/Decrease Credits</li> <li>Course Sequence</li> <li>Name (new name</li></ul>	/ code	Advisors Articulation Agreements Program Admission Req Continuing Eligibility Re J Footnotes	uirements/Procedures
Show all changes on the attac	hed program sheet if possible.		
	uipment/Space Implications:	Crtificale (CNI)	
4. Has the department con	sulted with all departments that m	ay be impacted? Yes 🗌 N	0 🗌 NA 🗌
Comments:			
Signatures:			
Reviewer	Print Name	Signature	Date
Program Change Initiator:	John Trame	John Lan	re 3/6/2001
Department Chair:		- <u>p</u>	Anti
Division Dean:		Konk De	Frig 3/6/0/
VP, Instruction/Student Serv	vices:	_ Aug ll	the
Curriculum and Articulation Service	130/0/ Log 3/30/01 ment Chair, Dean, Curriculum File es: ograms\Program Change Form 1/9/01	New Listing to: Counseling; Admissi	ons Code: Program Change Form v2.doc

#### Computer Networking (APCNTM) Associate in Applied Science Degree

#### Program Effective Term: Fall 2001

Some employers require or prefer employees to have an associate degree as a condition for employment or for advancement. You can earn an AAS in Computer Networking by completing the requirements listed below.

#### **Business Division**

1

5 3

**Computer Instruction and Electronics Department** 

Advisors: Gary Downen, Michael Galea, Phil Geyer, Roland Meade, John Rinn, John Trame

#### Requirements

1.	Complete the Certificate in Computer Systems Technology (CTCSTC)	25
2.	Complete the Advanced Certificate in Computer Networking Academy I (CVCNT)	16
3.	Complete General Education Requirements for the AAS Degree	18-21
4.	Complete one additional credit to bring the total to 60 credits	1
.m (	60	

Minimum Credits Required for the Program:

Washtenaw Community College EEO / Title IX / Section 504 Statement

Washtenaw Community College does not discriminate on the basis of race, sex, color, religion, national origin, age, disability, height, weight, marital status, or veteran Washtenaw Community College does not discriminate on the basis of race, sex, color, religion, national origin, age, disability, height, weight, marital status, or veteran status in provision of its educational programs and services or in employment opportunities and benefits. WCC is committed to compliance in all of its activities and services with the requirements of Title IX of the Educational Amendments of 1972, Public Act 453, Section 504 of the Rehabilitation Act of 1973, Title VII of the Civil Rights Act of 1964 as amended, Public Act 220, and the Americans with Disabilities Act should be directed to the Office of the Dean of Student lowurder comparison and services under Title IX and Section 504, and the Americans with Disabilities Act should be directed to the Office of the Dean of Student lowurder comparison and services.

1904 as amenoed, Public Act 220, and the Americans with Disabilities Act of 1990. Inquiries concerning programs and services under Title IX and Section 504, and the Americans with Disabilities Act should be directed to the Office of the Dean of Student Services; Room 225A, Student Center Building, 734- 973-3536. Inquiries regarding compliance in employment should be directed to the College Affirmative Action Officer in the Office of Human Resource Management, Room 120, Business Education Building, 934- 973-3497. Inquiries concerning access to facilities should be directed to the Director of Plant Operations, Plant Operations Building, 734- 677-5300.