Program Information Report

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: **62**
Select a concentration.

Computer Systems and Networking Concentrations

Microsoft Network Operating System (MNOS)		(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

Second Semester		(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 Semester		(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 Semester		(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	Soc. Sci. Elective(s)	3
Elective	Arts/Human. Elective(s)	3

Minimum Credits Required for the Concentration or Option: 62

Local and Wide 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

Second Semester (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 Semester (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 Semester (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 Credits Required for the Concentration or Option: 62

Minimum Credits Required for the Program: 62

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	

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 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.

Requested Changes:

☐ Remove course(s): CNT 223 & CNT 224 from the NETW concentration.

☐ Add course(s):
removing or adding a course)*

☐ Program title (new title is _____)

☐ Description

☐ Advisors

☐ Program admission requirements
☐ Continuing eligibility requirements

Show all changes on the catalog page you attach.

☐ Program outcomes (may also result from

☐ Program assessment plan*

☐ Accreditation information

☑ Other

Note: A change to the Award Type requires the submission of a new program proposal form and a separate

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.
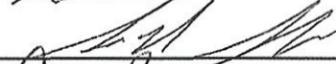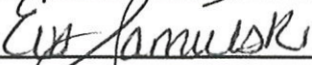
Financial/staffing/equipment/space implications:
None

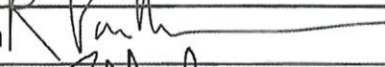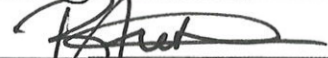List departments that have been consulted regarding their use of this program.
Computer Science & Information Technology

Signatures:

Reviewer	Print Name	Signature	Date
Initiator	Michael Kidd	*[signature]*	10-12-23
Department Chair	Scott Shope	*[signature]*	10-12-23
Division Dean/Administrator	Erin Samulski	Erin Samulski	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

WASHTENAW COMMUNITY COLLEGE

PROGRAM CHANGE FORM			
Curriculum Committee Chair	Randy Van Wagnen	*[signature]*	1-7-24
Assessment Committee Chair	Jessica Hale	*[signature]*	1/8/24
Vice President for Instruction	Dr. Brandon Tucker	*[signature]*	2/8/24

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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

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:
https://www.wccnet.edu/learn/transfer-wcc-credits/articulation-agreements.php.

Minimum Concentration Credits Required for the Program: **62**
Select a concentration.

Computer Systems and Networking Concentrations

Microsoft Network Operating System (MNOS)		(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

Second Semester		(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 Semester		(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 Semester		(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 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

Program Information Report

Second Semester		**(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 Semester		**(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 Semester		**(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 Credits Required for the Concentration or Option: 62

Minimum Credits Required for the Program: **62**

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: Computer Systems and Networking	Effective Term: F 2024
Division Code: BCT	Department: CSIT	

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 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.

Requested Changes:

☒ Remove course(s): __CST 118_____
☒ Add course(s): __CST 120_____
☐ Program title (new title is _____)
☐ Description
☐ Advisors
☐ Program admission requirements
☐ Continuing eligibility requirements

☐ Program outcomes (may also result from removing or adding a course)*
☐ Program assessment plan*
☐ Accreditation information
☐ Other _____

Show all changes on the catalog page you attach.

Note: A change to the Award Type requires the submission of a new program proposal form and a separate program inactivation form. Contact the Director of Curriculum & Assessment for more information.

* Please submit a Program Assessment Plan Change form.

Rationale for proposed changes:

In discussion and review with our advisory board and relevant faculty, all feel that although the course content and exercises are brought up to current levels of technology (a much-needed upgrade), much more is needed in the way of additional content. It is not possible to implement all of the material needed for today's entry-level positions in a two-credit hour course. This is due to significant advances in the administrative functions of the Windows command line and more demanding PowerShell utilizations over the past couple of decades, something that did not exist when this course was originally created. Not to mention that floppy disks are not utilized any longer and the previous version of this course (revised last year) used them. This course uses the same contact hours as it did 23 years ago while the Microsoft operating systems exploded with functionality. Basically, students do not have enough exposure to make them proficient and are experiencing a disconnect between the Microsoft and Linux command line courses and need stronger foundations and experiences in both scripts and command line fundamentals.

Financial/staffing/equipment/space implications:
None

List departments that have been consulted regarding their use of this program.
CSIT

Signatures:

Reviewer	Print Name	Signature	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 Samulski*	05/31/2023

*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
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		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

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: https://www.wccnet.edu/learn/transfer-wcc-credits/articulation-agreements.php.

Minimum Concentration Credits Required for the Program: **61**
Select a concentration.

Computer Systems and Networking Concentrations

Microsoft Network Operating System (MNOS)		(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

Second Semester		(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 Semester		(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 Semester		(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 Credits Required for the Concentration or Option: 61

Local and Wide 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

Program Information Report

Second Semester		(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 Semester		(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 Semester		(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 Credits Required for the Concentration or Option: 61

Minimum Credits Required for the Program: **61**

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 & Networking	Effective Term: Fall 2022
Division Code: BCT	Department: CSIT	

Directions:

1. Attach the current program listing from the WCC catalog or website and indicate any changes to be made.

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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.

Requested Changes:

☐ Remove course(s): _____
☐ Add course(s): _____
☐ Program title (new title is _____)
☐ Description
☐ Advisors
☐ Program admission requirements
☐ Continuing eligibility requirements

Show all changes on the catalog page you attach.

* Please submit a Program Assessment Plan Change form.

☐ Program outcomes (may also result from removing or adding a course)*
☐ Program assessment plan*
☐ Accreditation information
☒ Other Remove LNOS Concentration

Note: A change to the Award Type requires the submission of a new program proposal form and a separate program inactivation form. Contact the Director of Curriculum & Assessment for more information.

Rationale for proposed changes:
Concentration is no longer offered. Courses were removed from the catalog.

Financial/staffing/equipment/space implications:

List departments that have been consulted regarding their use of this program.

Signatures:

Reviewer	Print Name	Signature	Date
Initiator	Cyndi Millns	Cyndi Millns	7/12/21
Department Chair	Cyndi Millns	Cyndi Millns	7/12/21
Division Dean/Administrator	Eva Samulski	*Eva Samulski*	07/13/2021
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 and President.			
Reviewer	Print Name	Signature	Date

Reviewed by C&A Committees 9/16/21

PROGRAM CHANGE FORM

Curriculum Committee Chair	Randy Van Wagnen		9/23/21
Assessment Committee Chair	SHAWN DERON		10.6.21
Vice President for Instruction	Kimberly Hurns		10-6-21
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Reviewed by C&A Committees 9/16/21

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

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: https://www.wccnet.edu/learn/transfer-wcc-credits/articulation-agreements.php .

Minimum Concentration Credits Required for the Program: **61**
Select a concentration.

Computer Systems and Networking Concentrations

Linux Network Operating System (LNOS)		(62 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
Second Semester		**(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 Semester		**(19 credits)**
CIS 206	Linux/UNIX II: Basic System Administration, Networking, and Security	4
CIS 221	Linux/UNIX Programming and Scripting I	4
CNT 206	Introduction to Networks	4
CNT 216	Switching, Routing and Wireless Essentials	4
Elective	Nat. Sci. Elective(s)	3
Fourth Semester		**(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 Credits 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	Computer Technology I	4
CST 165	Computer Technology II	4
CST 185	Local and Mobile Networking Essentials	4

Program Information Report

Second Semester		**(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 Semester		**(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 Semester		**(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 Credits Required for the Concentration or Option: 61

Local and Wide 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

Second Semester		**(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 Semester		**(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 Semester		**(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 Credits Required for the Concentration or Option: 61

Minimum Credits Required for the Program: **61**

Notes:

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

WASHTENAW COMMUNITY COLLEGE

PROGRAM CHANGE OR DISCONTINUATION FORM

Program Code: **Program Name: Computer Systems and**
APCSN **Networking Associate Degree**

Effective Term: Fall 2021

Division Code: **Department:** CSIT
BCT

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:

- ☐ Review
- ☐ Remove course(s): _____
- ☒ Add course(s): CSS 210 or CNT 290_____
- ☐ Program title (title was _____)
- ☐ Description
- ☐ Type of award
- ☐ Advisors
- ☐ Articulation information

- ☐ Program admission requirements
- ☐ Continuing eligibility requirements
- ☐ Program outcomes
- ☐ Accreditation information
- ☐ Discontinuation (attach program discontinuation plan that includes transition of students and timetable for phasing out courses)
- ☒ Other Course name Change for CNT 216 & 226

Show all changes on the attached page from the catalog.

Rationale for proposed changes or discontinuation:
The Cisco Networking Academy has updated the program. It is now only three required courses and one optional course. We are changing our program to stay in compliance with the Cisco Networking Academy agreement.

Financial/staffing/equipment/space implications:

None

List departments that have been consulted regarding their use of this program.
No other departments need to be consulted.

Signatures:

Reviewer	Print Name	Signature	Date
Initiator	John P. Trame	*John Trame*	9/4/2020
Department Chair	Cyndi Millns	*Cyndi Millns*	9/8/2020
Division Dean/Administrator	Eva Samulski	*Eva Samulski*	09/09/2020
Please submit completed form to the Office of Curriculum and Assessment (SC 257). Once reviewed by the appropriate faculty committees we will secure the signature of the VPI and President.			
Vice President for Instruction	Kimberly Hurns	*Kimberly Hurns*	10/22/2020
President	Rose B. Bellanca		

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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: **62**
Select a concentration.

Computer Systems and Networking Concentrations

Linux Network Operating System (LNOS)		(63 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

Second Semester		(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)	3
Elective	Speech/Comp. Elective(s)	3

Third Semester		(19 credits)
CIS 206	Linux/UNIX II: Basic System Administration, Networking, and Security	4
CIS 221	Linux/UNIX Programming and Scripting I	4
CNT 206	Introduction to Networks	4
CNT 216	Routing and Switching Essentials	4
Elective	Nat. Sci. Elective(s)	3

Fourth Semester		(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 Credits Required for the Concentration or Option: 63

Microsoft Network Operating System (MNOS)		(62 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

Program Information Report

Second Semester		(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	Speech/Comp. Elective(s)	3

Third Semester		(17 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	3
Elective	Nat. Sci. Elective(s)	3
Elective	Soc. Sci. Elective(s)	3

Fourth Semester		(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 Credits Required for the Concentration or Option: 62

Local and Wide Area Networking (NETW)		(62 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

Second Semester		(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)	3
Elective	Speech/Comp. Elective(s)	3

Third Semester		(17 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	3
Elective	Nat. Sci. Elective(s)	3
Elective	Soc. Sci. Elective(s)	3

Fourth Semester		(14 credits)
CNT 226	Scaling Networks	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 Credits Required for the Concentration or Option: 62

Minimum Credits Required for the Program: **62**

Notes:

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

PROGRAM CHANGE OR DISCONTINUATION FORM

Program Code: (APCSN) **Program Name:** Computer Systems & Networking   **Effective Term: Fall 2020**

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:

☐ Review
☒ Remove course(s): **CST275, CIS161 & CNT236**
☒ Add course(s): **CNT290 & CSS210**
☐ Program title (title was _____)
☒ Description
☐ Type of award
☒ Advisors
☐ Articulation information

Show all changes on the attached page from the catalog.

☐ Program admission requirements
☐ Continuing eligibility requirements
☐ Program outcomes
☐ Accreditation information
☐ Discontinuation (attach program discontinuation plan that includes transition of students and timetable for phasing out courses)
☒ Other
  1. Forensics Concentration is being eliminated.
  2. CIS221 has been moved to the third semester in the Linux concentration.
  3. A number of General Education courses have been moved to different semesters.
  4. "BMG205 or CST270" have been changed from "4" to "3".
  5. Remove Mike Galea from the list of advisor.
  6. Remove CIS 161 from the program
  7. Remove CNT 236 from program and add CNT 290 or CSS 210 to the program
  8. Remove the year from the title of CNT 211, 223 and 224

Rationale for proposed changes or discontinuation:

1. 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

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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)
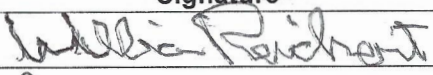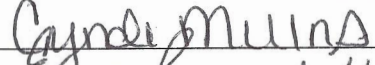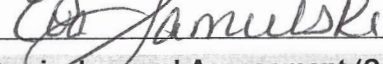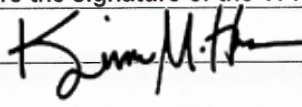
Financial/staffing/equipment/space implications:
NONE

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

Signatures:

Reviewer	Print Name	Signature	Date
Initiator	William Reichert	William Reichert	2/28/2020
Department Chair	Cyndi Mullins	Cyndi Mullins	
Division Dean/Administrator	Eva Samulski	Eva Samulski	3-2-20
Please submit completed form to the Office of Curriculum and Assessment (SC 257). Once reviewed by the appropriate faculty committees we will secure the signature of the VPI and President.			
Vice President for Instruction	Kimberly Hurns	Kim M. H	4-15-2020
President	Rose B. Bellanca		
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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

Computer Forensics (CSFC)		(63 credits)
First Semester		**(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
Second Semester		**(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)	3
Elective	Writing Elective(s)	3
Third Semester		**(15 credits)**
CNT 206	Introduction to Networks	4
CNT 216	Routing and Switching Essentials	4
CST 270	Computer Forensics I	4
Elective	Soc. Sci. Elective(s)	3
Fourth Semester		**(14 credits)**
CIS 161	Introduction to PowerShell	4
CST 275	Computer Forensics II	4
Elective	Arts/Human. Elective(s)	3
Elective	Nat. Sci. Elective(s)	3

Minimum Credits Required for the Concentration or Option: 63

Linux Network Operating System (LNOS)		(67 credits)
First Semester		**(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
Second Semester		**(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)	3
Elective	Writing Elective(s)	3

Third Semester		**(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

Fourth Semester		**(15 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	Arts/Human. Elective(s)	3

Minimum Credits Required for the Concentration or Option: 67

Microsoft Network Operating System (MNOS)		**(67 credits)**

First Semester		**(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

Second Semester		**(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 Semester		**(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 Semester		**(15 credits)**
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 Credits Required for the Concentration or Option: 67

Local and Wide Area Networking (NETW)		**(67 credits)**

First Semester		**(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

Second Semester		**(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)	3
Elective	Writing Elective(s)	3

Third Semester		**(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 Semester		**(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 Credits Required for the Concentration or Option: 67

Minimum Credits Required for the Program: **63**

PROGRAM CHANGE OR DISCONTINUATION FORM

ProgramCode:(APCSN) Program Name: Computer Systems & Networking   Effective Term: **Fall 2019**

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:

☐ Review
☒ Remove course(s): __**CST225, Security Track**
☒ Add course(s): _____ **CST185, CNT223, CNT224**
☐ Program title (title was _____
☐ Description
☐ Type of award
☐ Advisors
☐ Articulation information

Show all changes on the <u>attached page from the catalog.</u>

☐ Program admission requirements
☐ Continuing eligibility requirements
☐ Program outcomes
☐ Accreditation information
☐ Discontinuation (attach program discontinuation plan that includes transition of students and timetable for phasing out courses)
☒ Other 1. Total Credit Hours for each of the ~~five~~ *four* alternate paths for getting this degree have increased by one.
2. 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.
3. Removal of the Security Track as part of this degree

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.

1. 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.
2. 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

logged 1/15/19

Office of Curriculum & Assessment   http://www.wccnet.edu/departments/curriculum

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 Geyer	*[signature]*	1/12/2019
Division Dean/Administrator	Eva Samulski	*Eva Samulski*	1-22-19

Please submit completed form to the Office of Curriculum and Assessment (SC 257).
Once reviewed by the appropriate faculty committees we will secure the signature of the VPI and President.

Vice President for Instruction	Kimberly Hurns	*[signature]*	2/11/19

Do not write in shaded area.   Entered in: Banner_____   C&A Database 2/19/19   Log File 2/19/19   Board Approval

Computer Systems and Networking (APCSN)

Associate in Applied Science Degree

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/.

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 Semester

Press F11 to exit full screen

Class	Title	Minimum 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~~
CST185	Local and Mobile Networking Essentials	4
Elective(s)	Writing/Composition or Communication	3
Total		~~16~~ 17

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

OR		
CNT223	Networking with Window Server 2016	4
OR		
CNT224	Identity with Windows Server 2016	4

Class	Title	Minimum Credits
Elective(s)	Math	3
Elective(s)	Writing/Composition	3
Total		17

Third Semester

Class	Title	Minimum Credits
CNT 206	Introduction to Networks	4
CNT 216	Routing and Switching Essentials	4
CST 270	Computer Forensics I	4
Elective(s)	Social and Behavioral Science	3
Total		15

Fourth Semester

Class	Title	Minimum Credits
CIS 161	Introduction to PowerShell	4
CST 275	Computer Forensics II	4
Elective(s)	Arts and Humanities	3
Elective(s)	Natural Sciences	3
Total		14

Total Credits Required: ~~62~~ 63

CST 278 - discontinued, removed from program

Linux Network Operating System (LNOS)

First Semester

Class	Title	Minimum Credits
CST 118	Microsoft Command Line Fundamentals	2
CST 160	Computer Technology I	4
CST 165	Computer Technology II	4
~~OOT 225~~	~~PC Networking~~	~~3~~
CST185	Local and Mobile Networking Essentials	4
Elective(s)	Writing/Composition or Communication	3
Total		~~16~~ 17

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
OR CNT223	Networking with Window Server 2016	4
OR CNT224	Identity with Windows Server 2016	4
Elective(s)	Math	3
Elective(s)	Writing/Composition	3
Total		17

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

Total Credits Required: ~~66~~ 67

Microsoft Network Operating System (MNOS)

First Semester

Class		Minimum Credits
CST 118	Microsoft Command Line Fundamentals	2
CST 160	Computer Technology I	4
CST 165	Computer Technology II	4
~~CST 223~~	~~PC Networking~~	~~3~~
CST185	Local and Mobile Networking Essentials	4
Elective(s)	Writing/Composition or Communication	3
Total		~~16~~ 17

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
Elective(s)	Math	3
Elective(s)	Writing/Composition	3
Total		17

Third Semester

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 I	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
CNT 223	Networking with Windows Server 2016	4
CNT 224	Identity with Windows Server 2016	4
Elective(s)	Arts and Humanities	3
Total		15

Total Credits Required: ~~66~~

67

▲ Local and Wide Area Networking (NETW)

First Semester

Class	Title	Minimum Credits
CST 118	Microsoft Command Line Fundamentals	2
CST 160	Computer Technology I	4
CST 165	Computer Technology II	4
~~CST 335~~	~~PC Networking~~	~~3~~
CST185	Local and Mobile Networking Essentials	4
Elective(s)	Writing/Composition or Communication	3
Total		~~16~~ 17

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
OR CNT223	Networking with Window Server 2016	4
OR CNT224	Identity with Windows Server 2016	4
Elective(s)	Math	3
Elective(s)	Writing/Composition	3
Total		17

Third Semester

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 I	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
CNT 226	Scaling Networks	4
CNT 236	Connecting Networks	4
Elective(s)	Arts and Humanities	3
Total		15

Total Credits Required: ~~66~~ 67

Computer and Network Security (CSEC)

First Semester

Class	Title	Minimum 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(s)	Writing/Composition or Communication	3
Total		16

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
Elective(s)	Math	3
Elective(s)	Writing/Composition	3
Total		17

Third Semester

Class	Title	Minimum Credits
CNT 206	Introduction to Networks	4
CNT 216	Routing and Switching Essentials	4
CSS 200	Introduction to Network Security - Security+	4
Elective(s)	Natural Science	3
Elective(s)	Social and Behavioral Science	3
Total		18

Fourth Semester

Class	Title	Minimum Credits
CIS 161	Introduction to PowerShell	4
CSS 205	Essentials of Network Penetration Testing	4
CSS 210	Network Perimeter Protection - CCNA Security	4
Elective(s)	Arts and Humanities	3
Total		15

| | Total Credits Required: | 66 |

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 [1]	7-8 credits	7-8 credits	3-4 credits
Social & Behavioral Science [2]	6 credits	6 credits	3 credits
Arts and Humanities [3]	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

[1] Two courses in Natural Science including one with laboratory experience (from two disciplines)
[2] From two disciplines
[3] From two disciplines

Program Information Report

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**
Select a concentration.

Computer Systems and Networking Concentrations

Computer and Network Security (CSEC)		(66 credits)
First Semester		**(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 Semester		**(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 Semester		**(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 Semester		**(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 Credits Required for the Concentration or Option: 66

Computer Forensics (CSFC)		(65 credits)
First Semester		**(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 Semester		**(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

Program Information Report

Elective	Math Elective(s)	3
Elective	Writing Elective(s)	3

Third Semester		**(15 credits)**
CNT 206	Introduction to Networks	4
CNT 216	Routing and Switching Essentials	4
CST 270	Computer Forensics I	4
Elective	Soc. Sci. Elective(s)	3

Fourth Semester		**(17 credits)**
CIS 161	Introduction to PowerShell	4
CST 275	Computer Forensics II	4
CST 278	Computer Forensics for Mobile Devices	3
Elective	Arts/Human. Elective(s)	3
Elective	Nat. Sci. Elective(s)	3

Minimum Credits Required for the Concentration or Option: 65

Linux Network Operating System (LNOS)		**(66 credits)**

First Semester		**(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 Semester		**(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 Semester		**(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

Fourth Semester		**(15 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	Arts/Human. Elective(s)	3

Minimum Credits Required for the Concentration or Option: 66

Microsoft Network Operating System (MNOS)		**(66 credits)**

First Semester		**(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 Semester		**(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

Program Information Report

Third Semester		(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 Semester		(15 credits)
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 Credits Required for the Concentration or Option: **66**

Local and Wide Area Networking (NETW)		(66 credits)

First Semester		(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 Semester		(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 Semester		(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 Semester		(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 Credits Required for the Concentration or Option: **66**

Minimum Credits Required for the Program: **65**

WASHTENAW COMMUNITY COLLEGE
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: CIS

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	3 credits	2nd Course in English Composition or one course in Communication	3 - 4 credits
Mathematics	3 - 4 credits	Mathematics	3 - 4 credits
Natural Sciences	3 - 4 credits	Natural Sciences	3 - 5 credits
Social & Behavioral Sciences	3 credits	Social & Behavioral Sciences	3 credits
Arts & Humanities	3 credits	Arts & Humanities from	3 credits
Critical Thinking	0 credits	Total	18 credits
Computer & Information Literacy	3 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
English Composition – 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: *none*
2nd Course in English Composition or one course in Communication   WCC previously required both a second composition/writing course and a communication course. Your options are: 1. Allow students to select any course that meets composition/writing or communication (*recommended*).   2. Require students to take a specific composition course (identify course below and on semester layout).   3. Require students to take a specific communication course (identify course below and on semester layout).
Requested Change: *none – Still listing an unspecified speech course*

	Mathematics – The requirement for one mathematics course remains the same. However, the courses that meet the MTA requirement have changed slightly. See the course listing for details
	Optional Change: None
	Natural Sciences - The requirement for one natural science course remains the same. No changes will be made unless specifically requested below.
	Optional 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: none
	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 will leave it there. If you previously used "Computer and Information Literacy Course," you will need to specify either a specific course or a list of courses from which to choose. 2. Remove the computer and information literacy course if the program will still meet the minimum of 60 credit hours. 3. Remove the computer and information literacy course and replace the course with elective or other credits as needed to meet the minimum of 60 credit hours.
	Required Change: none – Not listed as a separate requirement

Reviewer	Print Name	Signature	Date
Initiator	Phil Geyer	*[signature]*	12-7-17
Department Chair	Phil Geyer	*[signature]*	12-7-17
Division Dean/ Administrator	Eva Samulski	*[signature]*	12-12-17
Vice President for Instruction		*[signature]*	1/9/18

Office use only

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                 1/16/18   1/16/18

Program Information Report

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.

Program Information Report

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**
Select a concentration.

Computer Systems and Networking Concentrations

Computer and Network Security (CSEC)		(66 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 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	Internetworking I - Fundamentals	4
CNT 216	Internetworking II - Routers	4
CSS 200	Introduction to Network Security	4
	Nat. Sci. Elective(s)	3
	Soc. Sci. Elective(s)	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)		(65 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 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	Internetworking I - Fundamentals	4
CNT 216	Internetworking II - Routers	4
CST 270	Data Recovery and Analysis	4
Elective	Soc. Sci. Elective(s)	3

CIS 161	Introduction to PowerShell	4
CST 275	Data Recovery and Forensics	4
CST 278	Computer Forensics for Mobile Devices	3
Elective	Arts/Human. Elective(s)	3
Elective	Nat. Sci. Elective(s)	3

Minimum Credits Required for the Concentration or Option: 65

Linux Network Operating System (LNOS)		(66 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 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

CIS 206	Linux/UNIX II: Basic System Administration, Networking, and Security	4
CNT 206	Internetworking I - Fundamentals	4
CNT 216	Internetworking II - Routers	4
Elective	Nat. Sci. Elective(s)	3
Elective	Soc. Sci. Elective(s)	3

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	Arts/Human. Elective(s)	3

Minimum Credits Required for the Concentration or Option: 66

Microsoft Network Operating System (MNOS)		(66 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 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

Program Information Report

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	Nat. Sci. Elective(s)	3
Elective	Soc. Sci. Elective(s)	3

CIS 161	Introduction to PowerShell	4
CNT 223	Administering Windows Server 2012	4
CNT 224	Configuring Advanced Windows Server 2012 Services	4
Elective	Arts/Human. Elective(s)	3

Minimum Credits Required for the Concentration or Option: 66

Local and Wide Area Networking (NETW)	**(66 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 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	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	Nat. Science Elective(s)	3
Elective	Soc. Sci. Elective(s)	3

CIS 161	Introduction to PowerShell	4
CNT 226	Internetworking III - Switches	4
CNT 236	Internetworking IV - WANs	4
Elective	Arts/Human. Elective(s)	3

Minimum Credits Required for the Concentration or Option: 66

Minimum Credits Required for the Program: **65**

PROGRAM CHANGE OR DISCONTINUATION FORM

Program Code: APCSN

Program Name: *Computer Systems and Networking*

Effective Term: *F2015*

Division Code: BCT

Department: *Computer Instruction*

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:

☐ Review
☐ Remove course(s): _____
☒ Add course(s): *CST 278 to Computer Forensics concentration (was Data Recovery); include BMG 205 or CST 270 in NETW concentration and MNOS concentration.*
☐ Program title (title was _____)
☐ Description
☐ Type of award
☐ Advisors
☐ Articulation information

☐ Program admission requirements
☐ Continuing eligibility requirements
☐ Program outcomes
☐ Accreditation information
☐ Discontinuation (attach program discontinuation plan that includes transition of students and timetable for phasing out courses)
☒ Other *Prerequisite change / Course order modification*

Show all changes on the <u>attached page from the catalog</u>.

Rationale for proposed changes or discontinuation:

& Students who complete CST 225 before enrolling in either CNT 201 or CNT 211 are far more successful than those who do not. To improve student success, we wish to change the program course list to include CST 225 in the first semester. See reverse side for more. **(over)**

Financial/staffing/equipment/space implications:

None

List departments that have been consulted regarding their use of this program.

None. This only affects Computer Networking majors

Signatures:

Reviewer	Print Name	Signature	Date
Initiator	John Trame	*John Trame*	1/7/2015
Department Chair	" "	" "	" "
Division Dean/Administrator		Kimberly Hurns	1/13/15
Vice President for Instruction			2/16/15
President			

Do not write in shaded area. Entered in: Banner 2/19/15 C&A Database 2/19/15 Log File Deleted 2/19/15 Board Approval NA

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.

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).

Program Information Report

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: **61**
Select a concentration.

Computer Systems and Networking Concentrations

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		
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		
CIS 161	Introduction to PowerShell	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)		(61 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		
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

Third Semester *(16 credits)*

CNT 206	Internetworking I - Fundamentals	4
CNT 216	Internetworking II - Routers	4
	Nat. Sci. Elective(s)	3
	Soc. Sci. Elective(s)	3

Fourth Semester *(15 credits)*

CIS 161	Introduction to PowerShell	4
CNT 223	Administering Windows Server 2012	4
CNT 224	Configuring Advanced Windows Server 2012 Services	4
	Arts/Human. Elective(s)	3

Minimum Credits Required for the Concentration or Option: 61

Local and Wide Area Networking (NETW)   **(61 credits)**

First Semester *(16 credits)*

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   *Program Information Report*   *(16 credits)*

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 *(16 credits)*

CNT 206	Internetworking I - Fundamentals	4
CNT 216	Internetworking II - Routers	4
	Nat. Science Elective(s)	3
	Soc. Sci. Elective(s)	3

Fourth Semester *(15 credits)*

CIS 161	Introduction to PowerShell	4
CNT 226	Internetworking III - Switches	4
CNT 236	Internetworking IV - WANs	4
	Arts/Human. Elective(s)	3

Minimum Credits Required for the Concentration or Option: 61

Minimum Credits Required for the Program: **61**

PROGRAM CHANGE OR DISCONTINUATION FORM

APCSN

Program Code: ~~APCNTW~~ Program Name: Computer ᵍsystems and Networking

Effective Term: F 2013

Division Code: _____   Department: Computer Instruction

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: *See Attached*

- [ ] Review   *CST174*
- [X] Remove course(s): *CPS120, CST150, CST155, BMG205*
- [X] Add course(s): *CST160, CST165, CIS206, CSS200, CIS166*
- [X] Program title (title was *Computer Networking*)
- [X] Description
- [ ] Type of award
- [ ] Advisors
- [ ] Articulation information

- [ ] Program admission requirements
- [ ] Continuing eligibility requirements
- [X] Program outcomes
- [ ] Accreditation information
- [ ] Discontinuation (attach program discontinuation plan that includes transition of students and timetable for phasing out courses)
- [ ] Other _____

Show all changes on the <u>attached page from the catalog.</u>

Rationale for proposed changes or discontinuation:

The ~~new~~ program will provide a uniform core set of courses for all networking majors, with a concentration in specific subsets of networking.

Financial/staffing/equipment/space implications:

None

List departments that have been consulted regarding their use of this program.

None

Signatures:

Reviewer	Print Name	Signature	Date
Initiator	John Trame	*signature*	2/14/2013
Department Chair	John Trame	*signature*	2/14/2013
Division Dean/Administrator	Rosemary Wilson	*signature*	2/25/13
Vice President for Instruction	William Abernethy	*signature*	3/22/13
President	N/A		

Do not write in shaded area.   Entered in: Banner _____ C&A Database 4/2/13 Log File 4/2/13 Board Approval _____

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.

logged 2/25/13

Computer Systems Networking

NETW — Local and Wide Area Networking

Semester 1
Code	Course	Cr
CST 118	Microsoft Command Line Fundamentals	2
CST 160	Computer Technology I	4
CST 165	Computer Technology II	4
Elective	Mathmatics	3
Elective	Speech	3
		16

Semester 2
Code	Course	Cr
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
		16

Semester 3
Code	Course	Cr
CNT 206	Internetworking I: Fundamentals	4
CNT 216	Internetworking II: Routers	4
Elective	Social Science	3
Elective	Natural Science	3
		14

Semester 4
Code	Course	Cr
CIS 161	Introduction to PowerShell	4
Elective	Arts and Humanities	3
CNT 226	Internetworking III - Switches	4
CNT 236	Internetworking IV - WANs	4
		15

Program Total 61

MNOS — Microsoft Network Operating System

Semester 1
Code	Course	Cr
CST 118	Microsoft Command Line Fundamentals	2
CST 160	Computer Technology I	4
CST 165	Computer Technology II	4
Elective	Mathmatics	3
Elective	Speech	3
		16

Semester 2
Code	Course	Cr
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
		16

Semester 3
Code	Course	Cr
CNT 206	Internetworking I: Fundamentals	4
CNT 216	Internetworking II: Routers	4
Elective	Social Science	3
Elective	Natural Science	3
		14

Semester 4
Code	Course	Cr
CIS 161	Introduction to PowerShell	4
Elective	Arts and Humanities	3
CNT 223	Administering Windows Server 2012	4
CNT 224	Configuring Advanced Windows Server 2012	4
		15

Program Total 61

LNOS — Linux Network Op System

Semester 1
Code	Course	Cr
CST 118	Microsoft Command Line Fundamentals	2
CST 160	Computer Technology I	4
CST 165	Computer Technology II	4
Elective	Mathmatics	3
Elective	Speech	3
		16

Semester 2
Code	Course	Cr
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
		16

Semester 3
Code	Course	Cr
CNT 206	Internetworking I: Fundamentals	4
CNT 216	Internetworking II: Routers	4
Elective	Social Science	3
Elective	Natural Science	3
CIS 206	Linus/UNIX II: Basic System Administration, Networking and Sedurity	3
		17

Semester 4
Code	Course	Cr
CIS 161	Introduction to PowerShell	4
Elective	Arts and Humanities	3
CIS 208	Linux/UNIX III: Intermediate System Administratin, Networking and Security	3
CIS 221	Linux/UNIX Programming and Scripting I	3
		13

Program Total 62

CSEC — Computer and Network Security

Semester 1
Code	Course	Cr
CST 118	Microsoft Command Line Fundamentals	2
CST 160	Computer Technology I	4
CST 165	Computer Technology II	4
Elective	Mathmatics	3
Elective	Speech	3
		16

Semester 2
Code	Course	Cr
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
		16

Semester 3
Code	Course	Cr
CNT 206	Internetworking I: Fundamentals	4
CNT 216	Internetworking II: Routers	4
Elective	Social Science	3
Elective	Natural Science	3
CSS 200	Computer Security II	4
		18

Semester 4
Code	Course	Cr
CIS 161	Introduction to PowerShell	4
Elective	Arts and Humanities	3
CSS 205	Computer Security III	4
CSS 210	Computer Security IV	4
		15

Program Total 65

DATR — Data Recovery

Semester 1
Code	Course	Cr
CST 118	Microsoft Command Line Fundamentals	2
CST 160	Computer Technology I	4
CST 165	Computer Technology	4
Elective	Mathmatics	3
Elective	Speech	3
		16

Semester 2
Code	Course	Cr
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
		16

Semester 3
Code	Course	Cr
CNT 206	Internetworking I: Fundamentals	4
CNT 216	Internetworking II: Routers	4
Elective	Social Science	3
CST 270	Data Recovery and Analysis	4
		15

Semester 4
Code	Course	Cr
CIS 161	Introduction to PowerShell	4
Elective	Arts and Humanities	3
CST 275	Data Recovery and Forensics	4
Elective	Natural Science	3
		14

Program Total 61

Virtualization

Semester 1

CST 118	Microsoft Command Line Fundamentals	2
CST 160	Computer Technology I	4
CST 165	Computer Technology II	4
Elective	Mathmatics	3
Elective	Speech	3
		16

Semester 2

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
		16

Semester 3

CNT 206	Internetworking I: Fundamentals	4
CNT 216	Internetworking II Routers	4
Elective	Social Science	3
Elective	Natural Science	3
		14

Semester 4

CIS 161	Introduction to PowerShell	4
Elective	Arts and Humanities	3
		7
	Program Total	**53**

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.

is this Cisco

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

— dont need
moved MTH here

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
CNT 216	Internetworking II: Routers	4	All Students
Elective	Math	3 - 4	All Students
Elective	Social and Behavioral Science	3	All Students
CIS 206	Linux/UNIX II: Basic System Administration, Networking, and Security	3	Linux Students only
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				
Class	**Title**	**Credit Hours**	
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
CIS 208	Linux/UNIX III: Intermediate System Administration, Networking, and Security	3	Linux Students only
CIS 221	Linux/Unix Programming and Scripting I	3	Linux Students only
CSS 205	Computer Security III	4	Security Students only
CSS 210	Computer Security IV	4	Security Students only
CST 275	Data Recovery and Forensics	4	Data Recovery Students only
TOTAL		**16 - 18**	

Handwritten margin notes: "New", "New" (next to CIS 206 and CSS 200); "New" (next to CIS 161); "New", "New", "New", "New", "New" (next to CIS 208, CIS 221, CSS 205, CSS 210, CST 275)

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

Division

Business/Computer Technologies

Department

Computer Instruction Dept

Advisors

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

See attached for revised course layout (handwritten)

Requirements

First Semester

Class	Title
Elective(s)	Computer and Information Literacy
CIS 121	Linux/UNIX I: Fundamentals
~~CPS 120~~	Introduction to Computer Science
CST 118	Microsoft Command Line Fundamentals
Total	

Second Semester

Class	Title
Elective(s)	Speech
Elective(s)	Writing

Total

61 - 68

Total Credits Required

PROGRAM CHANGE OR DISCONTINUATION FORM

Program Code: APCNTM

Program Name: Computer Networking

Effective Term: Winter 2012

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:

☐ Review
☒ Remove course(s): ELE 174, ELE 299, CSS 270 _____
☒ Add course(s): BMG 205, CST 174, CST 270 _____
☐ Program title (title was _____)
☐ Description
☐ Type of award
☐ Advisors
☐ Articulation information

☐ Program admission requirements
☐ Continuing eligibility requirements
☐ Program outcomes
☐ Accreditation information
☐ Discontinuation (attach program discontinuation plan that includes transition of students and timetable for phasing out courses)
☐ Other _____

Show all changes on the <u>attached page from the catalog</u>.

Rationale for proposed changes or discontinuation:

ELE 299 Customer Relations has been discontinued and replaced with a similar course: BMG 205 Creating the Customer Experience. Co-op opportunities for this program are no longer being managed by the ELE Department, and CST 174 is a more accurate course number than ELE 174 for Co-op. CSS 270 Computer Security VII (Data Recovery I) is now CST Data Recovery and Analysis.
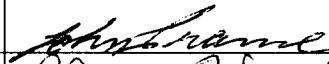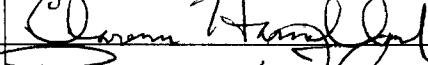
Financial/staffing/equipment/space implications:

None.

List departments that have been consulted regarding their use of this program.

CIS

Signatures:

Reviewer	Print Name	Signature	Date
Initiator	John Trame	*signature*	11/17/2011
Department Chair	Clarence Hasselbach	*signature*	11/17/11
Division Dean/Administrator	Rosemary Wilson	*signature*	11/28/11
Vice President for Instruction	Stuart Blacklaw	*signature*	12/7/11
President	Rose Bellanca		

Do not write in shaded area. Entered in: Banner_____ C&A Database_____ Log File_____ Board Approval_____

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.

logged 11/30/11 s/v

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

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 Education Requirements   (21 - 24 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/Hum.	Elective(s)	3
Computer Lit.	Elective(s)	3

Major/Area Requirements   (40 - 4̶5̶ 44 Credits)

	Complete the Computer Systems Technology Certificate (17 credits).	0
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 *(CST 174)*	~~ELE~~ Co-op Education I	
~~ELE 299~~ OR *(BMG 205)* *CST 270* Elective:	~~Customer Relations~~ CREATING THE CUSTOMER EXPERIENCE / DATA RECOVERY AND ANALYSIS Complete the Computer Networking Academy I Advanced Certificate (16 credits). CNT 206, CNT 216, CNT 226 and CNT 236	1 - $~~5~~ 4 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
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

Minimum Credits Required for the Program: **61 - 64 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 »

Program Information Report

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: Fall 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.

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.

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

	Complete the Computer Systems Technology Certificate (17 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
BMG 205 or	Creating the Customer Experience	
CST 174 or	CST Co-op I	
CST 270	Data Recovery and Analysis	1-4
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

Minimum Credits Required for the Program: **61**

PROGRAM CHANGE OR DISCONTINUATION FORM

Program Code: APCNTM

Program Name: Computer Networking Associate In Applied Science

Effective Term: W2012

Division Code: BCT

Department: Computer Instruction

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:

☐ Review
☒ Remove course(s): _____ELE 299; reduce electives_____
☒ Add course(s): _____BMG 205_____
☐ Program title (title was _____)
☐ Description
☐ Type of award
☐ Advisors
☐ Articulation information

☐ Program admission requirements
☐ Continuing eligibility requirements
☐ Program outcomes
☐ Accreditation information
☐ Discontinuation (attach program discontinuation plan that includes transition of students and timetable for phasing out courses)
☐ Other_____

Show all changes on the <u>attached page from the catalog</u>.

Rationale for proposed changes or discontinuation:

Change the ELE 299 Customer Relations requirement to BMG 205 Creating the Customer Experience, to provide the students with a more rounded, generic business approach to the subject.

Financial/staffing/equipment/space implications:

None

List departments that have been consulted regarding their use of this program.

None. This only affects the Computer Systems Technology certificate, and Computer Networking Associate degree programs, which are both in our department.

Signatures:

Reviewer	Print Name	Signature	Date
Initiator	John Trame	*John Trame*	3/30/2011
Department Chair	Clarence Husselbach	*Clem Hamilled*	4/19/11
Division Dean/Administrator	Rosemary Wilson	*Rosemary Wilson*	4/21/11
Vice President for Instruction	Stuart Blacklaw	*Stuart Blacklaw*	7-14-11
President			

Do not write in shaded area. Entered in: Banner_____ C&A Database_7/18/11 Log File 7/25/11 Board Approval _____
7/18/11

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.

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: Fall 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.

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 Education 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 Requirements (40 credits)

	Complete the Computer Systems Technology Certificate (17 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).	15-16
	CNT 201, CNT 211, CNT 223 and CNT 224	
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

Minimum Credits Required for the Program: **61**

PROGRAM CHANGE FORM

Program Code:	Program Name:	Effective Term:
APCNTM	Computer Networking	200409

Directions:

1. Attach the current program listing from the WCC catalog 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 Course Syllabus Form, but should be submitted at the same time as the program change form.

Requested Changes:

☒Remove __5__ course(s)
☒Add __4__ course(s)
☒Total credits: Current credits __60__ After changes __60__
☐Title (title was _____)
☐Description

Show all changes on the attached page from the catalog.

☐Advisors
☐Articulation information
☐Program admission requirements
☐Continuing eligibility requirements
☐Program outcomes
Other _____

Rationale for proposed changes:

As currently drafted, the program description for the Computer Networking Degree requires successful completion of the Certificate in Computer Systems Technology. The Computer Systems Technology program is being changed to delete courses CIS 121 and CPS 120. The changes on the attached page add CIS 121 and CPS 120 to the program. (Without these courses, the program falls below the 60 credit hour threshold for an AAS degree).

Financial/staffing/equipment/space implications:

No impact

List departments that have been consulted regarding the use of this program.

ELE

Signatures:

Reviewer	Print Name	Signature	Date
Program Change Initiator	Philip Geyer		3-26-04
Department Chair	Philip Geyer		3-26-04
Division Dean/Administrator	Rosemary Wilson		3-31-04
Vice President for Instruction	Roger Palay		4/3/04

Please submit completed form to the Office of Curriculum and Articulation Services.

Access Program File __4/16__   Log __4/16__   Copied and Returned

MAY 06 2004

Office of Curriculum & Articulation Services

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 Education 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/Area 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 to 60 credits	5

Minimum Credits Required for the Program: 60

Washtenaw Community College
Program Change Request Form

Program Code: APCNTM   **Program Name: Associate Degree - Computer Networking**   **Effective Term: Fall 2002**

Attach the current program listing from the WCC catalog and indicate any changes that you would like to make. Draw lines through anything that should be removed and write in any additions. Extensive narrative changes may be included on a separate sheet. Check the boxes below for each type of change being proposed. If you are making changes to courses or proposing new courses (that don't currently exist) as part of this proposal, they must be approved separately using a Course-Syllabus Approval Form (CSAF).

1. Requested Changes:

☐ Remove _____ Course(s)
☐ Add _____ Course(s)
☐ Increase/Decrease Total Credits: Current Credits_____ After Changes
☐ Course Sequence
☐ Name (new name _____)
☐ Description

Show all changes on the attached program sheet.

☐ Advisors
☐ Articulation Agreements
☐ Program Admission Requirements/Procedures
☐ Continuing Eligibility Requirements
☐ Footnotes
☒ Other Add in Microsoft Certificate as an alternate to the CISCO Certificate to obtain this Associate Degree.

Rationale for Proposed Changes: On page 98, in the description for the Associate in Applied Science Degree for Computer Networking I (APCNTM), the option for the Computer Networking Operating Systems (CVCNOS) Certificate as an alternative way to achieve this degree was inadvertently left off. The diagrams shown on page 96 of the catalog (see attached) does show the two alternatives correctly, with a path shown for either certificate. This Program Change Request Form is being submitted to request that the new catalog be updated with this correction.

Note: The changes as proposed on the attached page and on the sheet attached showing the diagram, reflect program changes to Microsoft Program planned to go into effect this fall. These changes, (forms which have been submitted previously), split the existing Microsoft Program into two certificates (similar to CISCO). The first certificate, which is part of the Associate Degree, would be 14 credit hours. This meant that the "additional credit hours" portion of the total hours (to bring the total to 60) had to be changed from "1 credit hour" to "1 to 3 credit hours" depending on whether the CISCO or Microsoft Program is chosen.

3. Financial/Staffing/Equipment/Space Implications: NOT APPLICABLE

4. Has the department consulted with all departments that may be impacted?   Yes ☒   No ☐   NA ☐

Comments: ELE, CNT, and CIS Department faculty

Signatures:

Reviewer	Print Name	Signature	Date
Program Change Initiator:	Wm Reichert		01/25/02
Department Chair:	GARY DOWNEN	Gary M. Downen	2/12/02
Division Dean:	Rosemary Wilson		2/15/02
VP, Instruction/Student Services:			3/8

Access Program File_____   Log _____   Copied and Returned _____   Processed . . .
Copies: Initiator, Department Chair, Dean, Curriculum File   New Listing to: Counseling; Admissions
Curriculum and Articulation Services:
Curriculum Development\Forms\Programs\Program Change Form 1/9/01   Document Code: Degree-Change.doc

Office of Curriculum & Articulation Services

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: **60**

Washtenaw Community College
Program Change Request Form

Program Code: APCNTM

Program Name: Computer Networking

Effective Term: Fall 2001

A program sheet for the above named program is attached. It should reflect any <u>approved</u> changes that have already been submitted for this year. Please review the program sheet carefully and indicate any changes that you would like to make. Draw lines through anything that should be removed and write in any additions. Extensive narrative changes may be written on a separate sheet. Check the boxes below for each type of change being proposed. If courses are being changed as part of this proposal, they must be approved separately, using a Course-Syllabus Approval Form (CSAF).

1. Requested Changes:

[X] Remove Course(s)
[ ] Add Course(s)
[X] Increase/Decrease Credits
[ ] Course Sequence
[ ] Name (new name _____)
[ ] Major/Program Code (new code _____)
[ ] Description

[ ] Advisors
[ ] Articulation Agreements
[ ] Program Admission Requirements/Procedures
[ ] Continuing Eligibility Requirements
[ ] Footnotes
[ ] Other _____

Show all changes on the attached program sheet if possible.

Rationale for Proposed Changes:

Reflects changes in the Adv. Certificate (CNT)

3. Financial/Staffing/Equipment/Space Implications:

4. Has the department consulted with all departments that may be impacted?   Yes [ ]   No [ ]   NA [ ]

Comments:

Signatures:

Reviewer	Print Name	Signature	Date
Program Change Initiator:	John Trame	*John Trame*	3/6/2001
Department Chair:			
Division Dean:		*Frank Butry*	3/6/01
VP, Instruction/Student Services:		*Amy Allen*	

Access Program File 3/30/01   Log 3/30/01 JzV   Copied and Returned _____
Copies: Initiator, Department Chair, Dean, Curriculum File   New Listing to: Counseling; Admissions

Curriculum and Articulation Services:
Curriculum Development\Forms\Programs\Program Change Form 1/9/01   Document 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
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

Minimum Credits Required for the Program: **60**