

## Program Information Report

## Science, Computer Technology, Engineering &amp; 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 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	Administering Microsoft Windows Client Operating Systems	3
CNT 206	Introduction to Networks	4
Elective	Writing Elective(s)*	3
Elective	Math Elective(s)	3

**Third Semester (15 credits)**

CNT 211	Installation, Storage, and Compute - Windows Server	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	3
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

**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	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

<b>Program Code: APCSN</b>	<b>Current Program Name: Computer Systems and Networking</b>	<b>Effective Term: Fall 2024</b>
<b>Division Code: BCT</b>	<b>Department: Computer Science &amp; IT</b>	

**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
- Program outcomes (may also result from
- 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:**

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.


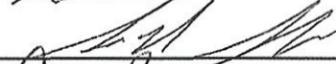
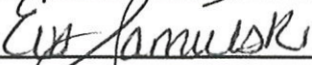
**Financial/staffing/equipment/space implications:**

None

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

Computer Science &amp; Information Technology

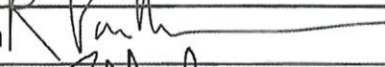

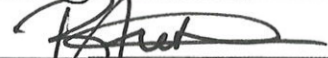
**Signatures:**

Reviewer	Print Name	Signature	Date
Initiator	Michael Kidd		10-12-23
Department Chair	Scott Shaper		10-12-23
Division Dean/Administrator	Eric Samulski		10-16-23
<b>Please return completed form to the Office of Curriculum &amp; Assessment, SC 257</b> or by e-mail to curriculum.assessment@wcnet.edu Once reviewed by the appropriate faculty committees we will secure the signature of the VPI.			
Reviewer	Print Name	Signature	Date

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

WASHTENAW COMMUNITY COLLEGE

**PROGRAM CHANGE FORM**

Curriculum Committee Chair	Randy Van Wagnen		1-7-24
Assessment Committee Chair	Jessica Hale		1/8/24
Vice President for Instruction	Dr. Brandon Tucker		2/2/24

Do not write in shaded area. Entered in: Banner \_\_\_\_\_ C&amp;A Database \_\_\_\_\_ Log File \_\_\_\_\_

Reviewed by C&amp;A Committees 11/16/23

## Program Information Report

## Science, Computer Technology, Engineering &amp; 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 CNT 223 or CNT 224	Installation, Storage, and Compute - Windows Server Networking with Windows Server 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 CST 270	Creating the Customer Experience 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 CSS 210	Network Forensics 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**

<b>Program Code: APCSN</b>	<b>Current Program Name: Computer Systems and Networking</b>	<b>Effective Term: F 2024</b>
<b>Division Code: BCT</b>	<b>Department: CSIT</b>	

**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:**

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Remove course(s): <u>__CST 118__</u> | <input type="checkbox"/> Program outcomes (may also result from removing or adding a course)* |
| <input checked="" type="checkbox"/> Add course(s): <u>__CST 120__</u>    | <input type="checkbox"/> Program assessment plan*   |
| <input type="checkbox"/> Program title (new title is _____)              | <input type="checkbox"/> Accreditation information  |
| <input type="checkbox"/> Description                                     | <input type="checkbox"/> Other _____  |
| <input type="checkbox"/> Advisors  |   |
| <input type="checkbox"/> Program admission requirements                  |   |
| <input type="checkbox"/> Continuing eligibility requirements             |   |

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.

**Show all changes on the catalog page you attach.**

\* 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	<i>James Lewis</i>	May 5 2023
Department Chair	Scott Shaper	<i>Scott Shaper</i>	5/5/2023
Division Dean/Administrator	Eva Samulski	<i>Eva Samulski</i>	05/31/2023
<b>Please return completed form to the Office of Curriculum &amp; Assessment, SC 257                  or by e-mail to curriculum.assessment@wccnet.edu</b> Once reviewed by the appropriate faculty committees we will secure the signature of the VPI.			
<b>Reviewer</b>	<b>Print Name</b>	<b>Signature</b>	<b>Date</b>
Curriculum Committee Chair	Randy Van Wagnen	<i>Randy Van Wagnen</i>	08/23/23
Assessment Committee Chair	Jessica Hale	<i>Jessica Hale</i>	08/28/23
Vice President for Instruction	Victor Vega	<i>[Signature]</i>	9/06/2023
Do not write in shaded area. Entered in: Banner _____ C&A Database _____ Log File _____			

Reviewed by C&A Committees 8/3/23



## Program Information Report

## Science, Computer Technology, Engineering &amp; 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**

<b>Program Code: APCSN</b>	<b>Current Program Name: Computer Systems &amp; Networking</b>	<b>Effective Term: Fall 2022</b>
<b>Division Code: BCT</b>	<b>Department: CSIT</b>	

**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): \_\_\_\_\_
- Add course(s): \_\_\_\_\_
- 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 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.

**Show all changes on the catalog page you attach.**

\* Please submit a [Program Assessment Plan Change](#) form.

**Rationale for proposed changes:**

Concentration is no longer offered. Courses were removed from the catalog.

**Financial/staffing/equipment/space implications:**

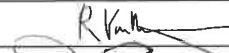
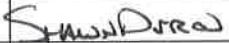


**List departments that have been consulted regarding their use of this program.**

**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	<i>Eva Samulski</i>	07/13/2021
<b>Please return completed form to the Office of Curriculum &amp; Assessment, SC 257 or by e-mail to curriculum.assessment@wccnet.edu</b>			
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			10.6.21
Vice President for Instruction	Kimberly Hurns		10-6-21
Do not write in shaded area. Entered in: Banner C&A Database <u>10/13/22</u> Log File <u>10/13/22</u>			

Reviewed by C&A Committees 9/16/21

## Program Information Report

## Science, Computer Technology, Engineering &amp; 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

<b>Second Semester</b>		<b>(16 credits)</b>
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

<b>Third Semester</b>		<b>(17 credits)</b>
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

<b>Fourth Semester</b>		<b>(14 credits)</b>
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)

<b>First Semester</b>		<b>(14 credits)</b>
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

<b>Second Semester</b>		<b>(16 credits)</b>
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

<b>Third Semester</b>		<b>(17 credits)</b>
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

<b>Fourth Semester</b>		<b>(14 credits)</b>
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:** APCSN **Program Name:** Computer Systems and Networking Associate Degree

**Effective Term:** Fall 2021

**Division Code:** BCT **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:**

- |   |   |
|---|---|
| <input type="checkbox"/> Review   | <input type="checkbox"/> Program admission requirements   |
| <input type="checkbox"/> Remove course(s): _____                            | <input type="checkbox"/> Continuing eligibility requirements  |
| <input checked="" type="checkbox"/> Add course(s): CSS 210 or CNT 290 _____ | <input type="checkbox"/> Program outcomes   |
| <input type="checkbox"/> Program title (title was _____)                    | <input type="checkbox"/> Accreditation information  |
| <input type="checkbox"/> Description  | <input type="checkbox"/> Discontinuation (attach program discontinuation plan that includes transition of students and timetable for phasing out courses) |
| <input type="checkbox"/> Type of award                                      | <input checked="" type="checkbox"/> Other Course name Change for CNT 216 & 226  |
| <input type="checkbox"/> Advisors   |   |
| <input type="checkbox"/> Articulation information                           |   |

**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
<b>Please submit completed form to the Office of Curriculum and Assessment (SC 257).</b>			
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		

Do not write in shaded area. Entered in: Banner \_\_\_\_\_ C&A Database \_\_\_\_\_ Log File \_\_\_\_\_ Board Approval \_\_\_\_\_

Reviewed by C&A Committees 10/15/20

## Program Information Report

## Science, Computer Technology, Engineering &amp; 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

<b>Second Semester</b>		<b>(17 credits)</b>
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

<b>Third Semester</b>		<b>(17 credits)</b>
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

<b>Fourth Semester</b>		<b>(14 credits)</b>
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)

<b>First Semester</b>		<b>(14 credits)</b>
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

<b>Second Semester</b>		<b>(17 credits)</b>
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

<b>Third Semester</b>		<b>(17 credits)</b>
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

<b>Fourth Semester</b>		<b>(14 credits)</b>
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

- 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 attached page from the catalog.

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

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)

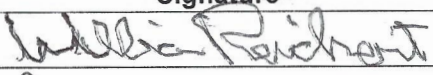
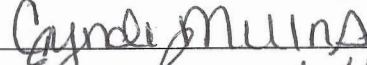
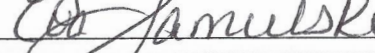
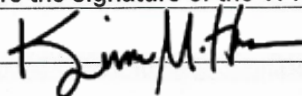
**Financial/staffing/equipment/space implications:**

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		2/28/2020
Department Chair	Cyndi Mullins		
Division Dean/Administrator	Ela Samulski		3-2-20
<b>Please submit completed form to the Office of Curriculum and Assessment (SC 257).</b> Once reviewed by the appropriate faculty committees we will secure the signature of the VPI and President.			
Vice President for Instruction	Kimberly Hurns		4-15-2020
President	Rose B. Bellanca		
Do not write in shaded area. Entered in: <u>Banner</u> <u>C&amp;A Database</u> <u>Log File</u> <u>Board Approval</u>			

*Reviewed by C&A Committees  
3/26/20*

**Program Information Report**

**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	4
CNT 224	Identity with Windows Server 2016	3
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

**Program Information Report**

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

Program Information Report

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 Swltching 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

- 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~~ <sup>four</sup> 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

**Show all changes on the attached page from the catalog.**

**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*

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	<i>William Reichert</i>	12/28/2018
Department Chair	<i>Phil Beyer</i>	<i>Phil Beyer</i>	1/12/2019
Division Dean/Administrator	<i>Eric Samulski</i>	<i>Eric Samulski</i>	1-22-19
<p><b>Please submit completed form to the Office of Curriculum and Assessment (SC 257).</b>            Once reviewed by the appropriate faculty committees we will secure the signature of the VPI and President.</p>			
Vice President for Instruction	Kimberly Hurns	<i>Kimberly Hurns</i>	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 JM

2019-03-08 10:00:00 AM



# Computer Systems and Networking (APCSN)

Associate in Applied Science Degree

2016 - 2017

2017 - 2018

2018 - 2019

## *Description*

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

## *Articulation*

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

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

Class	Title	Minimum Credits
CST 118	Microsoft Command Line Fundamentals	2
CST 160	Computer Technology I	4
CST 165	Computer Technology II	4
<del>CST 225</del>	<del>PC Networking</del>	<del>3</del>
CST185	Local and Mobile Networking Essentials	4
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

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
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

CST 278 - discontinued, removed from program

63

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
<del>CST 225</del>	<del>PC Networking</del>	<del>3</del>
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	Title	Minimum Credits
<u>CST 118</u>	Microsoft Command Line Fundamentals	2
<u>CST 160</u>	Computer Technology I	4
<u>CST 165</u>	Computer Technology II	4
<u>CST 229</u>	PC Networking	5
<u>CST185</u>	Local and Mobile Networking Essentials	4
<u>Elective(s)</u>	Writing/Composition or Communication	3
<b>Total</b>		<del>46</del> 17

Second Semester

Class	Title	Minimum Credits
<u>CIS 121</u>	Linux/UNIX I: Fundamentals	4
<u>CNT 201</u>	Administering Microsoft Windows Client Operating Systems	3
<u>CNT 211</u>	Installation, Storage, and Compute - Windows Server 2016	4
<u>Elective(s)</u>	Math	3
<u>Elective(s)</u>	Writing/Composition	3
<b>Total</b>		17

Third Semester

Class	Title	Minimum Credits
<u>CNT 206</u>	Introduction to Networks	4
<u>CNT 216</u>	Routing and Switching Essentials	4
<u>BMG 205</u>	or Creating the Customer Experience	
<u>CST 270</u>	Computer Forensics I	4
<u>Elective(s)</u>	Natural Sciences	3
<u>Elective(s)</u>	Social and Behavioral Science	3
<b>Total</b>		18

Fourth Semester

Class	Title	Minimum Credits
<u>CIS 161</u>	Introduction to PowerShell	4
<u>CNT 223</u>	Networking with Windows Server 2016	4
<u>CNT 224</u>	Identity with Windows Server 2016	4
<u>Elective(s)</u>	Arts and Humanities	3
<b>Total</b>		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
<del>CST 205</del>	<del>PC Networking</del>	<del>2</del>
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

MERN BCT DIVISION JAN 22/15

## Computer and Network Security (CSEC)

### 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
Elective(s)	<u>Writing/Composition or Communication</u>	3
<b>Total</b>		<b>16</b>

### 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)	<u>Math</u>	3
Elective(s)	<u>Writing/Composition</u>	3
<b>Total</b>		<b>17</b>

### 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)	<u>Natural Science</u>	3
Elective(s)	<u>Social and Behavioral Science</u>	3
<b>Total</b>		<b>18</b>

### Fourth Semester

Class	Title	Minimum Credits
CIS 161	Introduction to PowerShell	4
CSS 205	Essentials of Network Penetration Testing	4
CSS 212	Network Perimeter Protection - CCNA Security	4
Elective(s)	<u>Arts and Humanities</u>	3
<b>Total</b>		<b>15</b>

**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 <sup>1</sup>	7-8 credits	7-8 credits	3-4 credits
Social & Behavioral Science <sup>2</sup>	6 credits	6 credits	3 credits
Arts and Humanities <sup>3</sup>	6 credits	6 credits	3 credits
General Education Electives to reach 30 credits	0-2 credits	0-2 credits	N/A
Minimum	30 credits	30 credits	18 credits

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

<sup>2</sup> From two disciplines

<sup>3</sup> From two disciplines

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**

<b>Third Semester</b>		<b>(18 credits)</b>
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

<b>Fourth Semester</b>		<b>(15 credits)</b>
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)**

<b>First Semester</b>		<b>(16 credits)</b>
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

<b>Second Semester</b>		<b>(17 credits)</b>
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

<b>Third Semester</b>		<b>(18 credits)</b>
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

<b>Fourth Semester</b>		<b>(15 credits)</b>
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**

GENERAL EDUCATION REVISION AAS PROGRAM CHANGE FORM 2018-2019

Due December 8, 2017

Program Code: <b>APCSN</b>	Program Name: <b>Computer Systems and Networking</b>
Division Code: <b>BCT</b>	Department: <b>CIS</b>

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:**

- Review each general education area under **Requested Changes** below and respond as needed.
- Attach the semester program layout showing the current program listing from the WCC catalog.
  - Indicate any changes to be made on the semester layout.
  - Draw a line through any courses that should be removed on the semester layout.
  - Write in any courses that need to be added on the semester layout.
- 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	2 <sup>nd</sup> 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		
<b>Total</b>	<b>21-24 credits</b>		

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

	<b>Mathematics</b> - 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: <i>None</i>
	<b>Natural Sciences</b> - The requirement for one natural science course remains the same. No changes will be made unless specifically requested below.
	Optional Change: <i>none</i>
	<b>Social &amp; Behavioral Sciences</b> - The requirement for one social and behavioral science course remains the same. No changes will be made unless specifically requested below.
	Optional Change: <i>none</i>
	<b>Arts &amp; Humanities</b> - 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: <i>None</i>
	<b>Computer and Information Literacy</b> The requirement for computer and information literacy has been removed. Your options are: <ol style="list-style-type: none"> <li>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.</li> <li>2. Remove the computer and information literacy course if the program will still meet the minimum of 60 credit hours.</li> <li>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.</li> </ol>
	Required Change: <i>none - Not listed as a separate requirement</i>

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

**Office use only**

Entered in:  Banner  C&A Database  Log File  
*1/10/18* *1/10/18*

## 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

Program Information Report

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:

- |  |   |
|--|---|
| <input type="checkbox"/> Review  | <input type="checkbox"/> Program admission requirements   |
| <input type="checkbox"/> Remove course(s):   | <input type="checkbox"/> Continuing eligibility requirements  |
| <input checked="" type="checkbox"/> Add course(s): <u>CST 278 to Computer Forensics Concentration (was Data Recovery)</u>              | <input type="checkbox"/> Program outcomes   |
| <input type="checkbox"/> Program title (title was _____) <u>include BMG205 or CST270 in NETW concentration and MNOS concentration.</u> | <input type="checkbox"/> Accreditation information  |
| <input type="checkbox"/> Description   | <input type="checkbox"/> Discontinuation (attach program discontinuation plan that includes transition of students and timetable for phasing out courses) |
| <input type="checkbox"/> Type of award   | <input checked="" type="checkbox"/> Other <u>Prerequisite change</u>  |
| <input type="checkbox"/> Advisors  | <u>Course order modification</u>  |
| <input type="checkbox"/> Articulation information  |   |

Show all changes on the attached page from the catalog.

Rationale for proposed changes or discontinuation:

Students who complete CST 225 before enrolling in either CNT201 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	<i>[Signature]</i>	1/7/2015
Department Chair	" " " "	" "	" "
Division Dean/Administrator	<i>[Signature]</i>	Kimberly Huerns	1/13/15
Vice President for Instruction	<i>[Signature]</i>		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](mailto:sjohn@wccnet.edu) for posting on the website.

md finished 2/19/15  
logged 1/13/15 sjl  
Office of Curriculum & Assessment

DEPARTMENT DIVISION JAN 2015

Change the Data Recovery specialty To ~~Data~~ 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

**Program Information Report**

<b>Third Semester</b>		<b>(14 credits)</b>
CNT 206	Internetworking I - Fundamentals	4
CNT 216	Internetworking II - Routers	4
	Nat. Sci. Elective(s)	3
	Soc. Sci. Elective(s)	3

<b>Fourth Semester</b>		<b>(15 credits)</b>
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)**

<b>First Semester</b>		<b>(16 credits)</b>
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

<b>Second Semester</b>		<b>(15 credits)</b>
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

<b>Third Semester</b>		<b>(16 credits)</b>
CNT 206	Internetworking I - Fundamentals	4
CNT 216	Internetworking II - Routers	4
	Nat. Science Elective(s)	3
	Soc. Sci. Elective(s)	3

<b>Fourth Semester</b>		<b>(15 credits)</b>
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

Program Code: ~~APCEN114~~ <sup>A PCSN</sup> Program Name: <sup>systems and</sup> Computer, 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*

<input type="checkbox"/> Review <i>CST174</i>	<input type="checkbox"/> Program admission requirements
<input checked="" type="checkbox"/> Remove course(s): <i>CPS120, CST150, CST155, BMG205</i>	<input type="checkbox"/> Continuing eligibility requirements
<input checked="" type="checkbox"/> Add course(s): <i>CST160, CST165, CIS206, CSS200, CSS166</i>	<input checked="" type="checkbox"/> Program outcomes
<input checked="" type="checkbox"/> Program title (title was <i>Computer Networking</i> )	<input type="checkbox"/> Accreditation information
<input checked="" type="checkbox"/> Description	<input type="checkbox"/> Discontinuation (attach program discontinuation plan that includes transition of students and timetable for phasing out courses)
<input type="checkbox"/> Type of award	<input type="checkbox"/> Other _____
<input type="checkbox"/> Advisors	
<input type="checkbox"/> Articulation information	

Show all changes on the attached page from the catalog.

**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	<i>[Signature]</i>	2/14/2013
Department Chair	John Trame	<i>[Signature]</i>	2/14/2013
Division Dean/Administrator	ROSEMARY WILSON	<i>[Signature]</i>	2/25/13
Vice President for Instruction	William Abernethy	<i>[Signature]</i>	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](mailto:sjohn@wccnet.edu) for posting on the website.

*for done  
logged 2/25/13*

## NETW

## MNOS

## LNOS

## CSEC

## DATR

Computer Systems Networking Local and Wide Area Networking		Microsoft Network Operating System		Linux Network Op System		Computer and Network Security		Data Recovery			
Semester 1		Semester 1		Semester 1		Semester 1		Semester 1			
CST 118	Microsoft Command Line Fundamentals	2	CST 118	Microsoft Command Line Fundamentals	2	CST 118	Microsoft Command Line Fundamentals	2	CST 118	Microsoft Command Line Fundamentals	2
CST 160	Computer Technology I	4	CST 160	Computer Technology I	4	CST 160	Computer Technology I	4	CST 160	Computer Technology I	4
CST 165	Computer Technology II	4	CST 165	Computer Technology II	4	CST 165	Computer Technology II	4	CST 165	Computer Technology II	4
Elective	Mathmatics	3	Elective	Mathmatics	3	Elective	Mathmatics	3	Elective	Mathmatics	3
Elective	Speech	3	Elective	Speech	3	Elective	Speech	3	Elective	Speech	3
		<b>16</b>			<b>16</b>			<b>16</b>			<b>16</b>
Semester 2		Semester 2		Semester 2		Semester 2		Semester 2			
CIS 121	Linux/Unix I: Fundamentals	3	CIS 121	Linux/Unix I: Fundamentals	3	CIS 121	Linux/Unix I: Fundamentals	3	CIS 121	Linux/Unix I: Fundamentals	3
CST 225	PC Networking	3	CST 225	PC Networking	3	CST 225	PC Networking	3	CST 225	PC Networking	3
CNT 201	Administering Windows Client Operating Systems	3	CNT 201	Administering Windows Client Operating Systems	3	CNT 201	Administering Windows Client Operating Systems	3	CNT 201	Administering Windows Client Operating Systems	3
CNT 211	Installing and Configuring Windows Server 2012	4	CNT 211	Installing and Configuring Windows Server 2012	4	CNT 211	Installing and Configuring Windows Server 2012	4	CNT 211	Installing and Configuring Windows Server 2012	4
Elective	Writing	3	Elective	Writing	3	Elective	Writing	3	Elective	Writing	3
		<b>16</b>			<b>16</b>			<b>16</b>			<b>16</b>
Semester 3		Semester 3		Semester 3		Semester 3		Semester 3			
CNT 206	Internetworking I: Fundamentals	4	CNT 206	Internetworking I: Fundamentals	4	CNT 206	Internetworking I: Fundamentals	4	CNT 206	Internetworking I: Fundamentals	4
CNT 216	Internetworking II: Routers	4	CNT 216	Internetworking II: Routers	4	CNT 216	Internetworking II: Routers	4	CNT 216	Internetworking II: Routers	4
Elective	Social Science	3	Elective	Social Science	3	Elective	Social Science	3	Elective	Social Science	3
Elective	Natural Science	3	Elective	Natural Science	3	Elective	Natural Science	3	Elective	Natural Science	3
		<b>14</b>			<b>14</b>			<b>17</b>			<b>15</b>
CIS 206	Linus/UNIX II: Basic System Administration, Networking and Security	3	CIS 206	Linus/UNIX II: Basic System Administration, Networking and Security	3	CSS 200	Computer Security II	4	CST 270	Data Recovery and Analysis	4
Semester 4		Semester 4		Semester 4		Semester 4		Semester 4			
CIS 161	Introduction to PowerShell	4	CIS 161	Introduction to PowerShell	4	CIS 161	Introduction to PowerShell	4	CIS 161	Introduction to PowerShell	4
Elective	Arts and Humanities	3	Elective	Arts and Humanities	3	Elective	Arts and Humanities	3	Elective	Arts and Humanities	3
CNT 226	Internetworking III - Switches	4	CNT 223	Administering Windows Server 2012	4	CIS 208	Linux/UNIX III: Intermediate System Administration, Networking and Security	3	CSS 205	Computer Security III	4
CNT 236	Internetworking IV - WANS	4	CNT 224	Configuring Advanced Windows Server 2012	4	CIS 221	Linux/UNIX Programming and Scripting I	3	CSS 210	Computer Security IV	4
		<b>15</b>			<b>15</b>			<b>13</b>			<b>15</b>
<b>Program Total</b>		<b>61</b>	<b>Program Total</b>		<b>61</b>	<b>Program Total</b>		<b>62</b>	<b>Program Total</b>		<b>65</b>
											<b>61</b>

<b>Virtualization</b>		
<b>Semester 1</b>		
	Microsoft Command Line Fundamentals	2
CST 118	Computer Technology I	4
CST 160	Computer Technology II	4
CST 165	Mathematics	3
Elective	Speech	3
		<b>16</b>
<b>Semester 2</b>		
CIS 121	Linux/Unix I: Fundamentals	3
CST 225	PC Networking	3
	Administering Windows Client Operating Systems	3
CNT 201	Installing and Configuring Windows Server 2012	4
CNT 211	Writing	3
Elective		<b>16</b>
<b>Semester 3</b>		
CNT 206	Internetworking I: Fundamentals	4
CNT 216	Internetworking II: Routers	4
Elective	Social Science	3
Elective	Natural Science	3
		<b>14</b>
<b>Semester 4</b>		
CIS 161	Introduction to PowerShell	4
Elective	Arts and Humanities	3
		<b>7</b>
<b>Program Total</b>		<b>53</b>

# Computer Systems and Networking

## Associate of Applied Science Degree

### Program Description

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.

*COLE*  
*is this Cisco*

*α*

### Advisors

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

### Requirements

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
<b>TOTAL</b>		<b>16</b>
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
<b>TOTAL</b>		<b>16</b>

*New  
New*

*don't need  
moved MTH here*



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

<b>Third Semester</b>			
<b>Class</b>	<b>Title</b>	<b>Credit Hours</b>	
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
<i>New</i> <i>New</i> 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
<b>TOTAL</b>		<b>14 - 19</b>	
<b>Fourth Semester</b>			
<b>Class</b>	<b>Title</b>	<b>Credit Hours</b>	
<i>New</i> 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
<i>New</i> <i>New</i> <i>New</i> <i>New</i> <i>New</i> 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
<b>TOTAL</b>		<b>16 - 18</b>	

# Computer Networking (APCNTM)

Associate in Applied Science Degree

2010 - 2011 2011 - 2012 2012 - 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](http://www.wccnet.edu/departments/curriculum/articulation.php?levelone=colleges)

## Contact Information

Business/Computer Technologies

Division

Computer Instruction Dept

Department

Advisors

Michael Galea, Philip Geyer, John Trame, William Reicherz,

James Lewis

## Requirements

### First Semester

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

### Total

### Second Semester

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

See attached for revised course layout

**Total**

**61 - 68**

**Total Credits Required**

PROGRAM CHANGE OR DISCONTINUATION FORM

Program Code: **APCNTM** Program Name: **Computer Networking**  
 Division Code: **BCTD** Department: **CIS**

Effective Term: **Winter 2012**

**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:**

- |   |   |
|---|---|
| <input type="checkbox"/> Review   | <input type="checkbox"/> Program admission requirements   |
| <input checked="" type="checkbox"/> Remove course(s): ELE 174, ELE 299, CSS 270 _____ | <input type="checkbox"/> Continuing eligibility requirements  |
| <input checked="" type="checkbox"/> Add course(s): BMG 205, CST 174, CST 270 _____    | <input type="checkbox"/> Program outcomes   |
| <input type="checkbox"/> Program title (title was _____)                              | <input type="checkbox"/> Accreditation information  |
| <input type="checkbox"/> Description  | <input type="checkbox"/> Discontinuation (attach program discontinuation plan that includes transition of students and timetable for phasing out courses) |
| <input type="checkbox"/> Type of award  | <input type="checkbox"/> Other _____  |
| <input type="checkbox"/> Advisors   |   |
| <input type="checkbox"/> Articulation information                                     |   |

Show all changes on the attached page from the catalog.

**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		11/17/2011
Department Chair	Clarence Hasselbach		11/17/11
Division Dean/Administrator	Rosemary Wilson		11/28/11
Vice President for Instruction	Stuart Blacklaw		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](mailto:sjohn@wccnet.edu) for posting on the website.

*for 12/19/11 done logged 11/30/11 sjv*

Washtenaw Community College.

**Certificates and Degrees.**

<http://www4.wccnet.edu/academicinfo/creditoofferings/programs/degree.php?code=APCNTM>

[Return to web format >](#)

**Computer Networking (APCNTM)**

Associate in Applied Science Degree

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

[Change Year](#)

**Description:**

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

**Contact Information:**

Division: Business and Computer Technologies

School: [School of Information Technology](#)

Department: [Computer Instruction Dept](#)

Advisors: [Michael Galea](#), [Philip Geyer](#), Roland Meade, [John Trame](#)

**Articulation:**

Davenport University, Bachelor degree;

Eastern Michigan University, several BS degrees.

Copies can be obtained from the Counseling Office, a program advisor, or from the Curriculum and

Assessment Office Web site: [http://www.wccnet.edu/departments/curriculum/articulation.php?](http://www.wccnet.edu/departments/curriculum/articulation.php?levelone=colleges)

[levelone=colleges](#)

**General Education Requirements**

**(21 - 24 Credits)**

<u>Writing</u>	Elective(s)	3 - 4
<u>Speech</u>	Elective(s)	3
<u>Math</u>	Elective(s)	3 - 4
<u>Nat. Sci.</u>	Elective(s)	3 - 4
<u>Soc. Sci.</u>	Elective(s)	3
<u>Arts/Hum.</u>	Elective(s)	3
<u>Computer Lit.</u>	Elective(s)	3

**Major/Area Requirements**

**(40 - ~~43~~<sup>44</sup> Credits)**

	Complete the Computer Systems Technology Certificate (17 credits).	0
<u>CST 118</u>	MS Command Line Fundamentals	2
<u>CST 150</u>	Computer Systems Technology I	5
<u>CST 155</u>	Computer Systems Technology II	5
<u>CST 225</u>	PC Networking	3
<u>CST 174</u> <del>ELE 174</del> or <del>ELE 174</del>	Co-op Education I	
<u>BM 6205</u> <del>ELE 299</del> or <u>CST 270</u>	Customer Relations <b>CREATING THE CUSTOMER EXPERIENCE</b> DATA RECOVERY AND ANALYSIS	1 - <del>3</del> <sup>4</sup>
Elective:	Complete the Computer Networking Academy I Advanced Certificate (16 credits). <u>CNT 206</u> , <u>CNT 216</u> , <u>CNT 226</u> and <u>CNT 236</u>	0
	or	0
Elective:	Complete the Computer Networking Operating Systems I Advanced Certificate (15 credits). <u>CNT 201</u> , <u>CNT 211</u> , <u>CNT 223</u> and <u>CNT 224</u>	15 - 16
<u>CIS 121</u>	Linux/UNIX I: Fundamentals	3

<u>CPS 120</u>	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 - ~~67~~<sup>68</sup> 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 CST 174 or CST 270	Creating the Customer Experience CST Co-op I 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

**Program Information Report**

**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:**

- |   |   |
|---|---|
| <input type="checkbox"/> Review   | <input type="checkbox"/> Program admission requirements   |
| <input checked="" type="checkbox"/> Remove course(s): ELE 299; reduce electives | <input type="checkbox"/> Continuing eligibility requirements  |
| <input checked="" type="checkbox"/> Add course(s): BMG 205                      | <input type="checkbox"/> Program outcomes   |
| <input type="checkbox"/> Program title (title was )                             | <input type="checkbox"/> Accreditation information  |
| <input type="checkbox"/> Description  | <input type="checkbox"/> Discontinuation (attach program discontinuation plan that includes transition of students and timetable for phasing out courses) |
| <input type="checkbox"/> Type of award  | <input type="checkbox"/> Other  |
| <input type="checkbox"/> Advisors   |   |
| <input type="checkbox"/> Articulation information                               |   |

Show all changes on the attached page from the catalog.

**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	<i>John Trame</i>	3/30/2011
Department Chair	Cherece Hasselbach	<i>Cherece Hasselbach</i>	4/19/11
Division Dean/Administrator	Rosemary Wilson	<i>Rosemary Wilson</i>	4/21/11
Vice President for Instruction	Stuart Blacklaw	<i>Stuart Blacklaw</i>	7-14-11
President			

Do not write in shaded area. Entered in: Banner C&A Database 7/18/11 Log File 4/25/11 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](mailto:sjohn@wccnet.edu) for posting on the website.

**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>.

**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 (49 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 BMG 205	ELE Co-op Education I Creating the Customer Experience	1-3
Elective	Complete the Computer Networking Academy I Advanced Certificate (16 credits). CNT 206, CNT 216, CNT 226 and CNT 236 or	
Elective	Complete the Computer Networking Operating Systems I Advanced Certificate (15 credits). CNT 201, CNT 211, CNT 223 and CNT 224	15-16
CIS 121	Linux/UNIX I: Fundamentals	3
CPS 120	Introduction to Computer Science	3
Elective	Complete an additional 3 credits to reach a minimum of 60 credit hours.	3

**Program Information Report**

**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

Advisors

Articulation information

Program admission requirements

Continuing eligibility requirements

Program outcomes

Other \_\_\_\_\_

Show all changes on the attached page from the catalog.

**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	<i>Philip Geyer</i>	3-26-04
Department Chair	Philip Geyer	<i>Philip Geyer</i>	3-26-04
Division Dean/Administrator	Rosemary Wilson	<i>Rosemary Wilson</i>	3-27-04
Vice President for Instruction	Roger Palay	<i>Roger Palay</i>	4/3/04

*Rol 4.104*

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

Office of Curriculum & Articulation Services

Program Change Form 8-2003

Processed ...

Access Program File 4/16

Log 4/16

Copied and Returned \_\_\_\_\_

MAY 06 2004

Office of Curriculum & Articulation Services

*ym*

**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

- 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.

Show all changes on the attached program sheet.

**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		2/12/02
Division Dean:			2/15/02
VP, Instruction/Student Services:			3/8

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

Copied and Revised \_\_\_\_\_  
New Listing to: Counseling; Admissions

Processed ...

# Computer Studies

---

## 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 approved 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:**

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Remove Course(s)<br><input type="checkbox"/> Add Course(s)<br><input checked="" type="checkbox"/> Increase/Decrease Credits<br><input type="checkbox"/> Course Sequence<br><input type="checkbox"/> Name (new name _____)<br><input type="checkbox"/> Major/Program Code (new code _____)<br><input type="checkbox"/> Description | <input type="checkbox"/> Advisors<br><input type="checkbox"/> Articulation Agreements<br><input type="checkbox"/> Program Admission Requirements/Procedures<br><input type="checkbox"/> Continuing Eligibility Requirements<br><input type="checkbox"/> Footnotes<br><input type="checkbox"/> 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	<i>John Trame</i>	3/6/2001
Department Chair:			
Division Dean:	<i>J</i>	<i>Ronald Burton</i>	3/6/01
VP, Instruction/Student Services:		<i>Nancy Allen</i>	

Access Program File 3/30/01

Log 3/30/01 J2V

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**

**Washtenaw Community College EEO / Title IX / Section 504 Statement**

Washtenaw Community College does not discriminate on the basis of race, sex, color, religion, national origin, age, disability, height, weight, marital status, or veteran status in provision of its educational programs and services or in employment opportunities and benefits. WCC is committed to compliance in all of its activities and services with the requirements of Title IX of the Educational Amendments of 1972, Public Act 453, Section 504 of the Rehabilitation Act of 1973, Title VII of the Civil Rights Act of 1964 as amended, Public Act 220, and the Americans with Disabilities Act of 1990. Inquiries concerning programs and services under Title IX and Section 504, and the Americans with Disabilities Act should be directed to the Office of the Dean of Student Services; Room 225A, Student Center Building, 734- 973-3536. Inquiries regarding compliance in employment should be directed to the College Affirmative Action Officer in the Office of Human Resource Management, Room 120, Business Education Building, 934- 973-3497. Inquiries concerning access to facilities should be directed to the Director of Plant Operations, Plant Operations Building, 734- 677-5300.