Program Information Report

CVNS

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.

Computer Security

Program Information Report

Network Security (CVNS)

Advanced Certificate

Program Effective Term: Fall 2015

High Demand Occupation High Skill Occupation High Wage Occupation

This program is designed to meet the emerging demand for highly-skilled computer systems security professionals within the information technology industry and business community. This advanced certificate program builds on the concepts introduced in the Foundations of Computer Security Certificate and provides an in-depth examination of computer security technology with an emphasis on executing a vulnerability analysis of an organization network and preparing a design or network security. The student will be trained to use various tools to manage and secure networks, Windows environments and Web servers, as well as defense mechanisms for Virtual Private Networks (VPN), Host Intrusion Detection Systems (HIDS) and Network Intrusion Detection Systems (NIDS). In addition, the student will master the concepts, principles, types and topologies of firewalls including packet filtering, proxy firewalls, application gateways, circuit gateways and other computer security technology. Students must complete the Foundations of Computer Security Certificate program or have equivalent knowledge before enrolling in this program.

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/departments/curriculum/articulation.php?levelone=colleges.

Applying for Admission to the Program:
In order to meet the requirements of the current job market, students of this program must have significant prior professional experience as Network and/or System Administrators or must demonstrate successful completion of certificate or degree programs in Network and System Administration.

Program Admission Requirements:
-An Academic Math Level of 3
-Substantial experience at installing and configuring computers and skill at working with the command line interface.
-Successful completion of the Foundations of Computer Security Certificate

Major/Area Requirements		(16 credits)
CIS 161	Introduction to PowerShell	4
CNT 251	Designing Windows Server Security	4
CSS 205	Essentials of Network Penetration Testing	4
CSS 210	Basic Network Perimeter Protection	4

Minimum Credits Required for the Program: 16

WASHTENAW COMMUNITY C

PROGRAM CHANGE OR DISCONTINUATION FORM

Program Code: CVNS **Program Name:** Network Security

Effective Term F'15

Division Code: BCT **Department:** CISD

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 a separate sheet.
3. Check the boxes below for each type of change being proposed. Changes to courses, discontinuing a course, new courses as part of the proposed program change, must be approved separately using a Master Syllabus for should be submitted at the same time as the program change form.

Requested Changes:

- ☐ Review
- ☒ Remove course(s): CSS 212, CSS 220
- ☒ Add course(s): CSS 205, CIS 161
- ☐ Program title (title was _____)
- ☐ Description
- ☐ Type of award
- ☐ Advisors
- ☐ Articulation information
- ☒ Program admission requirements
- ☐ Continuing eligibility requirements
- ☐ Program outcomes
- ☐ Accreditation information
- ☐ Discontinuation (attach program discont plan that includes transition of students for phasing out courses)
- ☐ Other _____

Show all changes on the attached page from the catalog. ~~Update math level to 4 for CIS 161~~ No.

Rationale for proposed changes or discontinuation:

Changes in industry requirements. Moving CSS 205 from certificate and adding CIS 161. Removing CSS 212 and 220.

Financial/staffing/equipment/space implications:

None

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

None

Signatures:

Reviewer	Print Name	Signature	
Initiator	Mike Galea		
Department Chair	John Trame		
Division Dean/Administrator	Kimberly Hurns		
Vice President for Instruction	William Abernethy		3/23/15
President			

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Please submit completed form to the Office of Curriculum and Assessment and email an electronic copy to sjohn(posting on the website.

mo logged 3/11/15 sj✓
done 4/14/15 mo

ACADEMICS

Network Security (CVNS)

Advanced Certificate 2013 - 2014

Description

This program is designed to meet the emerging demand for highly-skilled computer systems security professionals v industry and business community. This advanced certificate program builds on the concepts introduced in the Founc Certificate and provides an in-depth examination of computer security technology with an emphasis on executing a organization network and preparing a design or network security. The student will be trained to use various tools to i Windows environments and Web servers, as well as defense mechanisms for Virtual Private Networks (VPN), Host (HIDS) and Network Intrusion Detection Systems (NIDS). In addition, the student will master the concepts, principles firewalls including packet filtering, proxy firewalls, application gateways, circuit gateways and other computer securi complete the Foundations of Computer Security Certificate program or have equivalent knowledge before enrolling i

Articulation

Eastern Michigan University, several BS degrees.

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

Admissions Requirements

-An Academic Math Level of ~~24 is required to enroll in CIS 161~~

-Substantial experience at installing and configuring computers and skill at working with the command line interface

-Successful completion of the Foundations of Computer Security Certificate

Applying for Admission to the Program

In order to meet the requirements of the current job market, students of this program must have significant prior prof and/or System Administrators or must demonstrate successful completion of certificate or degree programs in Netw

Contact Information

Division: Business/Computer Technologies
Department: Computer Instruction Dept
Advisors: Michael Galea, John Trame

Requirements

Major/Area Requirements

Class	Title	Credits
CNT 251	Designing Windows Server Security	4
CSS 210	Basic Network Perimeter Protection	4
~~CSS 212~~	~~Computer Security V~~	~~4~~
~~CSS 220~~	~~Computer Security VI~~	~~4~~
Total		**16**

CSS205 Essentials of Network Penetration Testing
CIS 161 Introduction to Powershell

4
16

Total Credits Required: 16

Gainful Employment Disclosures

WASHTENAW COMMUNITY COLLEGE

PROGRAM CHANGE OR DISCONTINUATION FORM

Program Code: CVNS **Program Name:** Network Security Advanced Certificate **Effective Term:** Fall 2009

Division Code: BCT **Department:** CISD

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): CSS 215, INP 285
- ☒ Add course(s): CSS 212
- ☐ 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.

Rationale for proposed changes or discontinuation: The Network Security Advanced Certificate is being shortened to 16 credits from 19 credits (minimum). Courses are being re-sequenced to introduce penetration testing at the end of the program. Content of CSS 215 Managing Network Security II will merge with CSS 210 Managing Network Security I. INP 285 was deactivated. A course in wireless security has been added. All course titles have been changed to better reflect the new sequencing of courses in the program.

Financial/staffing/equipment/space implications:
No new investment in staffing, equipment or space is required.

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

Signatures:

Reviewer	Print Name	Signature	Date
Initiator	Mike Galea		11-26-08
Department Chair	Clarence Hasselbach		11/26/2008
Division Dean/Administrator	Rosemary Wilson		12/1/08
Vice President for Instruction			3/25/09
President			

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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 forensics or learn how to run a successful e-business, the growing field of applied information technology is waiting for you.

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.

Computer Security and Forensics

Become part of the growing field of computer system security and forensics.

Network Security (CVNS)

Advanced Certificate

Program Effective Term: Fall 2009

This program is designed to meet the emerging demand for highly-skilled computer systems security professionals within the information technology industry and business community. This advanced certificate program builds on the concepts introduced in Foundations of Computer Security Certificate and provides an in-depth examination of computer security technology with an emphasis on executing a vulnerability analysis of an organization network and preparing a design or network security. The student will be trained to use various tools to manage and secure networks, Windows environments and Web servers, as well as defense mechanisms for Virtual Private Networks (VPN), Host Intrusion Detection Systems (HIDS) and Network Intrusion Detection Systems (NIDS). In addition, the student will master the concepts, principles, types and topologies of firewalls including packet filtering, proxy firewalls, application gateways, circuit gateways and other computer security technology. Students must complete the Foundations of Computer Security Certificate program with the Network Security Option or have equivalent knowledge before enrolling in this program.

Articulation:
Eastern Michigan University, BS degree.

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.

Applying for Admission to the Program:
In order to meet the requirements of the current job market, students of this program must have significant prior professional experience as Network and/or System Administrators or must demonstrate successful completion of certificate or degree programs in Network and System Administration.

Program Admission Requirements:
-An Academic Math Level of 3
-Substantial experience at installing and configuring computers and skill at working with the command line interface.
-Successful completion of the Foundations of Computer Security Certificate-Network Security Option

Major/Area Requirements		(16 credits)
CNT 251	Designing Windows Security	4
CSS 210	Managing Network Security I	4
CSS 212	Fundamentals of Secure Wireless Local Area Networks	4
CSS 220	Network Security Design	4

Minimum Credits Required for the Program: **16**

Computer Forensics (CVCFC) — Advanced Certificate

Major/Area Requirements		(14 credits)
CJT 208	Criminal Evidence and Procedure	3
CSS 240	High-Technology Crime	3
CSS 270	Computer Forensics I	4
CSS 275	Computer Forensics II	4
Minimum Credits Required for the Program:		**14**

Computer Forensics (CVCFC)

This certificate program is designed to meet the demand in business and industry for computer security professionals who are trained in computer forensics. Students will learn current techniques in data preservation, identification, and extraction from Linux, FAT, and NTFS file systems and will perform forensic analysis of systems using popular examination tool kits. Students will also learn common practices involved in forensic investigations and evidence handling, and will become informed in federal and state privacy, intellectual property, search and seizure, and cyber-crime laws.

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/departments/curriculum/articulation.php?levelone=colleges.

Program Admission Requirements: Completion of the Information Assurance Certificate program or students must have equivalent knowledge.

Continuing Eligibility Requirements: Students must maintain a grade of "C" or better in the program requirements.

Network Security (CVNS) — Advanced Certificate

Major/Area Requirements		(~~19~~ 16 credits)
CNT 251	Designing Windows Security	4
CSS 210	Managing Network Security I	4
~~CSS 215~~	~~Managing Network Security II~~	~~4~~
CSS 220	Network Security Design	4
~~INP 285~~	~~Web Server Security~~	~~3~~
Minimum Credits Required for the Program:		~~19~~ 16

CSS 212 Computer Security V 4

Network Security (CVNS)

This program provides comprehensive instruction for students who wish to enhance their skills in computer systems security technology and implementation. This program is designed to meet the emerging demand for highly-skilled computer systems security professionals within the information technology industry and business community. This advanced certificate program builds on the concepts introduced in Information Assurance, and provides an in-depth examination of computer security technology with an emphasis on executing a vulnerability analysis of an organization network and preparing a design or network security. The student will be trained to use various tools to manage and secure networks, Windows environments, and Web servers, as well as defense mechanisms for Virtual Private Networks (VPN), Host Intrusion Detection Systems (HIDS), and Network Intrusion Detection Systems (NIDS). In addition, the student will master the concepts, principles, types, and topologies of firewalls including packet filtering, proxy firewalls, application gateways, circuit gateways, and other computer security technology. Students must complete the Information Assurance Certificate program, or have equivalent knowledge, before enrolling in this program.

Articulation: Eastern Michigan University, BS degree. 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.

Program Admission Requirements: CNT 206 Internetworking I - Fundamentals with a minimum grade of "C" or equivalent knowledge. CNT 216 Internetworking II - Routers with a minimum grade of "C" or equivalent knowledge. Completion of the Information Assurance Certificate with a minimum GPA of 2.0 or equivalent knowledge.

Program: Network Security (CVNS)

Advanced Certificate

Program requirements shown below are for catalog year 2009-10

Description:
The program is designed to meet the emerging demand for highly-skilled computer systems security professionals within the information technology industry and business community. This Advanced Certificate program builds on the concepts introduced in the Foundations of Computer Security Certificate, and provides an in-depth examination of computer security technology with an emphasis on executing a vulnerability analysis of an organization network and preparing a design or network security. The student will be trained to use various tools to manage and secure networks, Windows environments, and Web servers, as well as defense mechanisms for Virtual Private Networks (VPN), Host Intrusion Detection Systems (HIDS), and Network Intrusion Detection Systems (NIDS). In addition, the student will master the concepts, principles, types, and topologies of firewalls including packet filtering, proxy firewalls, application gateways, circuit gateways, and other computer security technology. Students must complete the Foundations of Computer Security Certificate program, with the Network Security Option or have equivalent knowledge, before enrolling in this program.

Division: Business and Computer Technologies

Department: Computer Instruction

Advisors: Mike Galea, John Trame

Admission Requirements: Math Level 3

- ~~Minimum COMPASS Algebra score of 32 or complete MTH 097 with a minimum grade of C and pass the LEE Exam with a minimum score of 75% to enter MTH 169.~~
- Substantial experience at installing and configuring computers and skill at working with the command line interface.
- Successful completion of the Foundations of Computer Security Certificate – Network Security Option.

Important Note Regarding Employment Opportunities in Network Security:
In order to the meet the requirements of the current job market, students of this program must have significant prior professional experience as Network and/or System Administrators or must demonstrate successful completion of certificate or degree programs in Network and System Administration.

Continuing Eligibility:
Students must maintain a grade of "C" or better in the program requirements.

Major/Area Requirements		**(16 Credits)**
CSS 205	Computer Security III	4
CSS 210	Computer Security IV	4

CSS 212	Computer Security V	4
CSS 220	Computer Security VI	4
Total Credit Hours		**16**

WASHTENAW COMMUNITY COLLEGE

PROGRAM CHANGE FORM

CVNS

Program Code: ~~CVCSS2~~ **Program Name:** Network Security **Effective Term:** 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 _____ course(s)
- ☐ Add _____ course(s)
- ☐ Total credits: Current credits_____ After changes _____
- ☒ Title (title was Computer Systems Security II)
- ☒ Description

Show all changes on the attached page from the catalog.

- ☐ Advisors
- ☐ Articulation information
- ☐ Program admission requirements
- ☐ Continuing eligibility requirements
- ☐ Program outcomes

Other _____

Rationale for proposed changes:

For Academic year 2004-2005, this certificate is being renamed to reflect its emphasis on network security

Financial/staffing/equipment/space implications:

See NSF Grant Budget detail, attached.

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

NA

Signatures:

Reviewer	Print Name	Signature	Date
Program Change Initiator	James Lewis	James Lewis /MB	12-18-03
Department Chair	Philip Geyer	Philip Geyer	12-19-03
Division Dean/Administrator	Rosemary Wilson	Rosemary Wilson	12-9-03
Vice President for Instruction	Roger Palay	Roger M. Palay	1/26/04

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

Access Program File 2/12 Log 2/12 Copied and Returned _____

Computer Systems

Network Security (CVNS)
Advanced Certificate

'UNDER CONSTRUCTION'

Program Effective Term: Fall 2004

This program provides comprehensive instruction for students who wish to enhance their skills in computer systems security technology and implementation. This program is designed to meet the emerging demand for highly-skilled computer systems security professionals within the information technology industry and business community. This advanced certificate program builds on the concepts introduced in Data Assurance, and provides an in-depth examination of computer security technology with an emphasis on executing a vulnerability analysis of an organization network and preparing a design or network security. The student will be trained to use various tools to manage and secure networks, Windows environments, and web servers, as well as defense mechanisms for Virtual Private Networks (VPN), Host Intrusion Detection Systems (HIDS), and Network Intrusion Detection Systems (NIDS). In addition, the student will master the concepts, principles, types, and topologies of firewalls including packet filtering, proxy firewalls, application gateways, circuit gateways, and other computer security technology. Students must complete the Data Assurance Certificate program, or have equivalent knowledge, before enrolling in this program.

Business and Computer Technologies Division
Computer Instruction Department

Advisors: James Lewis, Phillip Geyer, Michael Galea

Program Admission Requirements:
CNT 206 Internetworking I - Fundamentals with a minimum grade of "C" or equivalent knowledge

CNT 216 Internetworking II - Routers with a minimum grade of "C" or equivalent knowledge

Completion of the Data Assurance Certificate with minimum GPA of 2.0 or equivalent knowledge

Major/Area Requirements		**(19 credits)**
CNT 251	Designing Windows Security	4
CSS 210	Managing Network Security I	4
CSS 215	Managing Network Security II	4
CSS 220	Network Security Design	4
INP 285	Web Server Security	3

Minimum Credits Required for the Program: 19

Network Security (CVNS)
Advanced Certificate

Program Effective Term: Fall 2004

This program provides comprehensive instruction for students who wish to enhance their skills in computer systems security technology and implementation. This program is designed to meet the emerging demand for highly-skilled computer systems security professionals within the information technology industry and business community. This advanced certificate program builds on the concepts introduced in Information Assurance, and provides an in-depth examination of computer security technology with an emphasis on executing a vulnerability analysis of an organization network and preparing a design or network security. The student will be trained to use various tools to manage and secure networks, Windows environments, and web servers, as well as defense mechanisms for Virtual Private Networks (VPN), Host Intrusion Detection Systems (HIDS), and Network Intrusion Detection Systems (NIDS). In addition, the student will master the concepts, principles, types, and topologies of firewalls including packet filtering, proxy firewalls, application gateways, circuit gateways, and other computer security technology. Students must complete the Information Assurance Certificate program, or have equivalent knowledge, before enrolling in this program.

Program Admission Requirements:

CNT 206 Internetworking I - Fundamentals with a minimum grade of "C" or equivalent knowledge

CNT 216 Internetworking II - Routers with a minimum grade of "C" or equivalent knowledge

Completion of the Data Assurance Certificate with minimum GPA of 2.0 or equivalent knowledge

Major/Area Requirements		**(19 credits)**
CNT 251	Designing Windows Security	4
CSS 210	Managing Network Security I	4
CSS 215	Managing Network Security II	4
CSS 220	Network Security Design	4
INP 285	Web Server Security	3

Minimum Credits Required for the Program: 19

Computer Programming

Computer Systems Security II (CVCSSC)

'UNDER CONSTRUCTION'

Advanced Certificate

Program Effective Term: Fall 2003

This program continues with methodologies for defending systems and networks introduced in the Computer Systems Security I Advanced Certificate. Students will use various tools to secure a web server. The concepts, principles, types, and topologies of firewalls including packet filtering, proxy firewalls, application gateways, circuit gateways and stateful inspection will be introduced. Various defense mechanisms associated with Virtual Private Networks (VPN), Host Intrusion Detection Systems (HID), and Network Intrusion Detection Systems (NIDS) will be covered. Students will also execute a vulnerability analysis of an organization network and prepare a design for network security.

Business and Computer Technologies Division

Computer Instruction Department

Advisor:

Program Admission Requirements:

CNT 206 Internetworking I - Fundamentals with a minimum grade of "C" or equivalent knowledge
CNT 216 Internetworking II - Routers with a minimum grade of "C" or equivalent knowledge
Completion of the Computer Systems Security I Advanced Certificate with minimum GPA of 2.0 or equivalent knowledge

Major/Area Requirements		**(18 Credits)**
CNT 251	Designing Windows Security	3
CSS 210	Managing Network Security I	4
CSS 215	Managing Network Security II	4
CSS 220	Network Security Design	4
INP 285	Web Server Security	3
Minimum Credits Required for the Program:		**18**

Washtenaw Community College

PRELIMINARY PROGRAM APPROVAL FORM (PPAF)

Proposed name of program: Computer Systems Security II Advanced Certificate

Faculty/initiator(s): Michael Galea

Division: BCTD **Department:** CISD **Estimated start-up term:** Fall 2003

Type of program: ☐ A.A. ☐ A.S. ☐ A.A.S. ☐ Certificate of Completion ☐ Certificate ☒ Advanced Certificate ☐ Post Associate Certificate

Describe the program briefly, including the need for the program and the benefits it will offer to students.

Washtenaw Community College is member of a consortium of seven colleges that have applied for a NSF grant for the development of a standardized computer security curriculum and for the development of regional and local security centers.

The Computer Systems Security II Advanced Certificate is part of a series of two certificates and a degree program under the grant.

With Homeland Security being a high national priority, the certificate is of timely and vital interest to the IT and business communities. It is estimated that $12.3 billion was spent to clean up damage from computer viruses in 2001 alone. Additionally, in a recent curvey of the Computer Security Institute, it was determined that 85% of the companies surveyed detected security breaches and 64% suffered financial losses because of such breaches.

According to PostNewsweek Tech Media, 2001, a serious deficit in the number of skilled computer security workers exists and will continue to exist into the future.The proposed certificate and the goals and objectives of the grant are designed to address the critical shortage of qualified computer security professionals.

Identify the resources (faculty, facilities, equipment) that will be needed to start and to maintain the program.

It is expected that the grant will be approved and that the grant will provide funding for creation of a standard computer security lab at WCC. Lab equipment will consist of various Cisco routers configured into an isolated network at WCC. Additionally, the grant will provide funding for a special computer security lab at a regional security center Moraine Valley Community College in Palos Hills, Illinois to be used to conduct remote "virtual" computer security training sessions.

Lab assignments and instructional materials are to be developed primarily by Inver Hills Community College in Grove Heights, Minnesota.

List the courses that the progam will require.

Existing	Need modification	New

CSS 210 Managing Network Security I – New course to be developed by grant consortium
INP 285 Web Server Security – Existing course. No modifications needed.
CSS 215 Managing Network Security II – New course to be developed by grant consortium
CNT 251 Designing Windows Security – New course to be developed by CIS faculty for 2003.
CSS 220 Network Security Design – New course to be developed by grant consortium.

Signatures:
Department Chair/Director: _____ Date: 4-8-03

Dean(s)/Administrator: _____ Date: 4-8-03

Executive Vice President of Instruction:

☒ Approved for development of PAD (Program Approval Document)
☐ Returned for additional review/development of PPAF (details attached)
☐ Not approved

Signature: Roger M. Baldy Date: 4/8/03

Copies: IAC: _____, Curriculum Committee: _____
Copies: President's Staff, Faculty/Initiator, Department Chair/Director, Dean/Administrator, Curriculum Files

Computer Systems Security II Advanced Certificate

This program continues with methodologies for defending systems and networks introduced in the Computer Systems Security I Advanced Certificate. Students will use various tools to secure a web server. The concepts, principles, types and topologies of firewalls including packet filtering, proxy firewalls, application gateways, circuit gateways and stateful inspection will be introduced. Various defense mechanisms associated with Virtual Private Networks (VPN), Host Intrusion Detection Systems (HID), and Network Intrusion detection Systems (NIDS) will be covered. Students will also execute a vulnerability analysis of an organization network and prepare a design for network security.

Program Admission Requirements:

-CNT 206 Internetworking I – Fundamentals with a grade of C or better or equivalent knowledge
-CNT 216 Internetworking II – Routers with a grade of C or better or equivalent knowledge
-Completion of the Computer Systems Security I Advanced Certificate with a grade point average of 2.0 or better or equivalent knowledge.

Major/Area Requirements:	Credits
CSS 210 Managing Network Security I	4
INP 285 Web Server Security	3
CSS 215 Managing Network Security II	4
CNT 251 Designing Windows Security	4
CSS 220 Network Security Design	4
Total program credits	19

Computer Systems Security II Advanced Certificate

This program continues with methodologies for defending systems and networks introduced in the Computer Systems Security I Advanced Certificate. Students will use various tools to secure a web server. The concepts, principles, types and topologies of firewalls including packet filtering, proxy firewalls, application gateways, circuit gateways and stateful inspection will be introduced. Various defense mechanisms associated with Virtual Private Networks (VPN), Host Intrusion Detection Systems (HID), and Network Intrusion detection Systems (NIDS) will be covered. Students will also execute a vulnerability analysis of an organization network and prepare a design for network security.

Program Admission Requirements:

-CNT 206 Internetworking I – Fundamentals with a grade of C or better or equivalent knowledge
-CNT 216 Internetworking II – Routers with a grade of C or better or equivalent knowledge
-Completion of the Computer Systems Security I Advanced Certificate with a grade point average of 2.0 or better or equivalent knowledge.

Major/Area Requirements:	Credits
CSS 210 Managing Network Security I	4
INP 285 Web Server Security	3
CSS 215 Managing Network Security II	4
CNT 251 Designing Windows Security	4
CSS 220 Network Security Design	4
Total program credits	19