

# CyberSecurity CERTIFICATE

## Program Overview

**Note: Students must have completed the Computer Network Engineering AAS degree or have instructor approval.**

CyberSecurity professionals work in a wide variety of information technology positions, but have a focus on information assurance, cyber ethics, and incident detection, investigation and response. Students completing this degree will be able to investigate and defend computer systems against cyber-attacks, unauthorized use or modification, and exploitation.

Students entering into this program of study should have excellent communication, reading and math skills. Throughout the program students will experience coursework that will help them develop critical skills such as critical thinking, performance monitoring, decision making and evaluating systems and organizations

The CyberSecurity certificate program at Saint Paul College is 24 credits in length. The program provides 16 credits specifically related to CyberSecurity which will aid students in the field and in potential certifications.

## Career Opportunities

CyberSecurity professionals will find a growing need in both the public and private employment sectors. Graduates will find excellent opportunities as systems administrators, network engineers, system programmers, and systems specialists.

## Program Outcomes

1. Graduates will have knowledge and skills in system design, analysis and maintenance.
2. Graduates will have the skills to gather, monitor, and analyze multiple sources of data to identify changes in circumstances or events.
3. Graduates will have the skills to evaluate information to determine compliance with security standards.
4. Graduates of the CyberSecurity program will be prepared for employment as Information Security Analyst or Computer Systems Analysts.

## Program Faculty

Mark Rawlings mark.rawlings@saintpaul.edu  
James Woodcock james.woodcock@saintpaul.edu

## Program Requirements

Check off when completed

| Course  | Cr        |
|---|-----------|
| <input type="checkbox"/> CSCI 1440 Networking Fundamentals . . . . .                                    | 4         |
| <input type="checkbox"/> CSCI 2420 Computer Security . . . . .  | 4         |
| <input type="checkbox"/> CSCI 2451 Computer Networking 2 - Server . . . . .                             | 4         |
| <input type="checkbox"/> CSCI 2480 Network Security and Penetration Prevention . . . . .                | 4         |
| <input type="checkbox"/> CSCI 2482 Security Incident Handling, Response and Disaster Recovery . . . . . | 4         |
| <input type="checkbox"/> CSCI 2484 Ethical Hacking & Countermeasures . . . . .                          | 4         |
| <b>Subtotal . . . . .</b>   | <b>24</b> |

**Total Program Credits . . . . . 24**

## Program Start Dates

Fall, Spring

## Course Sequence

This course sequence is recommended for a full-time student; however, this sequence is not required. Not all courses are offered each semester; a selection of courses is offered summer term. Students should consult with the Program Faculty each semester.

### First Semester

|  |           |
|--|-----------|
| CSCI 1440 Networking Fundamentals . . . . .        | 4         |
| CSCI 2420 Computer Security . . . . .              | 4         |
| CSCI 2451 Computer Networking 2 - Server . . . . . | 4         |
| <b>Total Semester Credits . . . . .</b>            | <b>12</b> |

### Second Semester

|   |           |
|---|-----------|
| CSCI 2480 Network Security and Penetration Prevention . . . . .                   | 4         |
| CSCI 2482 Security and Incident Handling Response and Disaster Recovery . . . . . | 4         |
| CSCI 2484 Ethical Hacking & Countermeasures . . . . .                             | 4         |
| <b>Total Semester Credits . . . . .</b>   | <b>12</b> |

**Total Program Credits . . . . . 24**

### Minimum Program Entry Requirements

Students entering this program must meet the following minimum program entry requirements:

**Reading:** Score of 78+ or grade of "C" or better in READ 0722

**Writing:** Score of 78+ on Reading Comprehension or grade of "C" or better in ENGL 0922

**Elementary Algebra:** Score of 76+ or grade of "C" or better in MATH 0910

Students enrolling in the Certificate should have previous networking experience or consider taking additional networking courses as identified by the instructor/advisors.

### Assessment Results and Prerequisites:

Students admitted into Saint Paul College programs may need to complete additional courses based on assessment results and course prerequisite requirements. Certain MATH, READ, and ENGL courses have additional prerequisites.

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*Information is subject to change.  
This Program Requirements Guide is not a contract.*