

# CYBERSECURITY

## CERTIFICATE - 30 CREDITS

### About this program

This certificate is designed for individuals looking to add technical skills in IT security. A person earning this certificate will develop skills to manage and secure the Linux operating system, develop and query an information database, and create simple scripts. Areas of cybersecurity focus include vulnerability assessment, penetration testing, perimeter defense, incident response and applying security measures to reduce risk of a security breach.

### Program outcomes

1. Analyze known security incidents to trace and document the steps in the incident.
2. Use mechanisms available in an operating system to control access to resources.
3. Construct input validation.
4. Install and configure firewall rules based on business policies.
5. Investigate various countermeasures and security controls to minimize risk and exposure.
6. Examine ethical issues related to cybersecurity.
7. Demonstrate the use of proper SQL commands to retrieve specific data from a database.
8. Use protocol analyzers to identify information encapsulated in a data packet.
9. Write scripts to perform specific functions within a host and networked computing environment.

### Curriculum overview

Crds	Requirement type
	Total

**Developmental courses note:** A student may be required to enroll in developmental courses in reading, writing and math. A student's scores on the Accuplacer assessment will determine enrollment in developmental courses. The purpose of developmental courses is to prepare students for the demands of a college-level curriculum. *Credits may vary.*

**Accreditation:** Minnesota State Community and Technical College is accredited by the Higher Learning Commission, a regional accreditation agency recognized by the U.S. Department of Education. The Higher Learning Commission 230 South LaSalle Street, Suite 7-500 Chicago, IL 60604-1411 <http://www.ncahigherlearningcommission.org> Phone: 312.263.0456 / 800.621.7440

# Curriculum requirement details

Required courses

Other requirements or restricted electives



## Course summaries



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Program Plan — ""

Locations:

