

**IT Networking and Security**
**AAS Degree | 72 Credits**

Campus: Hibbing

<b>FIRST YEAR FALL SEMESTER</b>		<b>CREDITS</b>	<b>HOURS LEC   LAB</b>	
ITNS 1505	IT Essentials 1	4	2	4
ITNS 1510 *	IT Essentials 2	4	2	4
ITNS 1515	Introduction to Web Master	2	1	2
ITNS 1650	Introduction to Cloud Computing	2	1	2
ITNS 2000	Emerging Technologies	2	1	2
# General Education courses from the MnTC (see Program Notes)		3		
<b>TOTAL SEMESTER CREDITS</b>		<b>17</b>		
<b>SPRING SEMESTER</b>				
ITNS 2090 *	SQL (Oracle) Programming	4	2	4
ITNS 2105 *	Python Programming	3	1	4
ITNS 2115	Linux Administration and Security	3	1	4
ITNS 2150 *	Microsoft Azure	3	1	4
COMM	Choose from one of the following COMM courses (MNTC 1): COMM 1210 Intro to Communication COMM 1215 Public Speaking COMM 1220 Interpersonal Communication COMM 1225 Intercultural Communication (also meets MNTC Goal 7)	3	3	0
# General Education courses from the MnTC (see Program Notes)		3		
<b>TOTAL SEMESTER CREDITS</b>		<b>19</b>		
<b>SECOND YEAR FALL SEMESTER</b>				
CNT 1010	Networking Fundamentals	3	2	2
CNT 1020 *	Router Theory and Router Technologies	3	2	2
CNT 2020	Security+	3	2	2
CNT 2070 *	Digital Forensics	3	2	2
ITNS 2536	PC Systems 1	2	0	4
# General education courses from the MnTC (see Program Notes)		3		
<b>TOTAL SEMESTER CREDITS</b>		<b>17</b>		
<b>SPRING SEMESTER</b>				
CNT 1030 *	Advanced Routing and Switching	3	2	2
CNT 1040 *	Advanced Networking and Management	3	2	2
ITNS 1605	Technical Communication Skills	2	2	0
ITNS 2537 or ITNS 2100	PC Systems 2 or Computer Systems Internship	2	0	4
ITNS 2560	Wireless Networking Technologies	3	2	2
ITNS 2580	IT Project Management	3	2	2
# General education courses from the MnTC (see Program Notes)		3		
<b>TOTAL SEMESTER CREDITS</b>		<b>19</b>		

**PROGRAM DESCRIPTION**

The IT Networking and Security program prepares students for rewarding careers in the dynamic field of computer networking, repair, and security. The continued growth of the internet, wide area networks (WANs), cloud storage, and local area networks (LANs) require people with broad knowledge and skills to design, manage, secure, and troubleshoot sophisticated information storage, retrieval, and presentation systems. This rigorous educational program covers the workings of networks and computers from an end user's desktop to a remote server that could be located anywhere in the world. The curriculum has been designed to encompass many of the same competencies that are covered by several recognized industry certifications, for example, Comp TIA's A+, Server+, Network+, Security+, Cisco CCNA; CWNA, and Linux Essentials: Students will gain the knowledge and skills that are recognized as important for employment in the field.

### PROGRAM LEARNING OUTCOMES

Upon completion of the IT Networking and Security AAS Degree, the graduate will be able to:

1. Demonstrate professional behavior in the workplace environment, including clear and concise communication skills.
2. Complete industry certifications in order to meet industry employment requirements.
3. Work collectively and collaboratively, exhibiting skills in leadership and team management.
4. Demonstrate mastery of Microsoft, Linux, Macintosh, and CISCO operating systems.
5. Identify and demonstrate hardware diagnostic skills and troubleshooting strategies.
6. Identify security issues and develop strategies to implement security protocols to make networks and servers more secure to intrusions.
7. Demonstrate the ability to be a life-long learner by identifying, implementing, and studying new technologies that change throughout the student's career.
8. Demonstrate effective writing, speaking, and listening skills.
9. Apply mathematics skills and logical reasoning.
10. Demonstrate knowledge of behaviors and interactions among individuals, societal groups, and institutions.

### ARTICULATION AGREEMENT

- Bemidji State University
- College of St. Scholastica: Computer Information Systems BS
- Minnesota State University, Moorhead: Operations Management, Technical Management

### PROGRAM NOTES

- \* Course has a prerequisite requirement.
- # COMM 1210,1215,1220,1225 cover MnTC Goal 1 - Communication. An additional 12 credits from at least two additional goal areas of the Minnesota Transfer Curriculum must be taken. See your advisor for appropriate selection.
- [Differential tuition is assessed for the ITNS courses.](#)
- The **Cisco Network Technician Certificate** can be earned after successful completion of: CNT 1010, CNT 1020, CNT 1030, CNT 1040, ITNS 1505, and ITNS 1510.

### EMPLOYMENT OPPORTUNITIES

Graduates of the IT Networking and Security program are prepared for a variety of entry-level positions in information technology. They are well-equipped to support local and regional employers in maintaining secure and efficient technology systems. Career options include network and systems technician, IT support specialist, or cybersecurity analyst. Many graduates find opportunities with area businesses, schools, healthcare providers, and manufacturers, while others pursue remote or statewide IT roles.

Salary & Growth Highlights:

- Entry-level IT support and networking roles typically start around \$40,000–\$55,000 per year, depending on location and experience.
- More advanced positions, such as cybersecurity or network analysts, can exceed \$80,000–\$100,000 per year with experience and certifications.
- According to the U.S. Bureau of Labor Statistics, employment in information security and network administration is projected to grow 8–29% from 2024 to 2034, much faster than average for all occupations.

This field offers excellent long-term potential for graduates who continue to build their skills and pursue industry-recognized certifications.

### PROGRAM FACULTY

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**MISSION:** Minnesota North College prepares lifelong learners and engaged citizens through inclusive, transformative experiences reflecting the character and natural environment of the region.

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