

IT Networking and Security

Diploma | 67 credits

Campus: Hibbing

FIRST YEAR			HOURS	
FALL SEMESTER 2024 – 16 Credits		CREDITS	LEC/LAB	
ITNS 1505	IT Essentials 1	4	2/4	
ITNS 1510	IT Essentials 2	4	2/4	
ITNS 1520	Introduction to Web Master	3	1/4	
ITNS 2019	Windows OS	2	1/2	
GENS 1170	Introduction to Computer Applications	1	0/2	
PSYC 1105	Psychology of Adjustment	2	2/0	
SPRING SEMESTER 2025 – 17 Credits				
ITNS 1650	Introduction to Cloud Computing	2	1/2	
ITNS 2010	Linux Install and Admin	3	1/4	
ITNS 2020	Linux Networking and Security	3	1/4	
ITNS 2095	SQL (Oracle) Programming	5	2/6	
ITNS 2145	Microsoft MTA Server	4	2/4	

SECOND YEAR					
FALL SEMESTER 2025 – 17 Credits					
CNT 1010	Network Fundamentals	3	2/2		
CNT 1020 *	Router Theory and Technology	3	2/2		
CNT 2010	Information Assurance	3	2/2		
CNT 2070	Digital Forensics	3	2/2		
ITNS 2536	PC Systems 1	2	0/4		
COMM 1210	Introduction to Communication (MnTC 1)	3	3/0		
SPRING SEMESTER 2026 – 17 Credits					
CNT 1030 *	Advanced Routing and Switching	3	2/2		
CNT 1040 *	Advanced Networking and Management	3	2/2		
ITNS 1601	Tech Writing Applications	2	2/0		
ITNS 2537	PC Systems 2	2	0/4		
or ITNS 2100	or Computer Systems Internship				
ITNS 2560	Wireless Networking Technologies	3	2/2		
ITNS 2580	IT Project Management	3	2/2		
PDEV 1130	Employment Strategies	1	0/2		

PROGRAM DESCRIPTION

The IT Networking and Security program prepare 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) requires 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 Diploma, 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.

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- 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.

ARTICULATION AGREEMENT

- Bemidji State University Applied Engineering
- Minnesota State University, Moorhead: Operations Management, Technical Management

PROGRAM NOTES

- * Course has a prerequisite
- Differential tuition is assessed for the ITNS courses.

EMPLOYMENT OPPORTUNITIES

Graduates of the IT Networking and Security program have many career advantages. Jobs are available in almost any area of the country in fields of computer research and manufacturing, training users on various hardware, software, operating systems, and security applications.

PROGRAM FACULTY

Erickson, Dj M 218-293-6867 <u>dj.erickson@minnesotanorth.edu</u>

Boelk, Keith 218-293-6898 keith.boelk@minnesotanorth.edu

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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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