

# Network Technologies

Career Cluster	Information Technology
Course Code	10101
Prerequisite(s)	Introduction To Information Technology Careers (Recommended), Computer Applications (Recommended), Computer Hardware & Software (Recommended)
Credit	.5-1
Program of Study and Sequence	This course or a dual enrollment equivalent is required for the Networking & Hardware pathway and recommended for the Programming pathway
Student Organization	SkillsUSA
Coordinating Work-Based Learning	Guest Speakers, Tours, Job Shadowing, Personal Portfolio
Industry Certifications	None
Dual Credit or Dual Enrollment	TBD
Teacher Certification	Information Technology Cluster Endorsement; Networking Systems & Information Support Pathway Endorsement; K-12 Educational Technology Endorsement; K-12 Classroom Technology Endorsement
Resources	

## Course Description:

Students in the Network Technologies course prepare for careers that involve network analysis, planning, and implementation, including design, installation, maintenance, and management of network systems. The successful establishment and maintenance of networking infrastructure is critical to the success of organizations.

## Program of Study Application

Part of the Networking & Hardware pathway. Recommended courses include: Introduction To Information Technology Careers, Computer Applications, and Computer Hardware & Software.

## Notes:

All Networking & Hardware standards integrate aspects of language arts and mathematics.

### Course Standards

<b>INDICATOR # NT 1. Demonstrate knowledge of designing and implementing a networking system.</b>		
<i>Webb Level</i>	<i>Sub-Indicator</i>	<i>Integrated Content</i>
Level 1: Recall	NT 1.1 Demonstrate knowledge of basic network communications.	
Level 1: Recall	NT 1.2 Demonstrate knowledge of basic network classifications and topologies.	
Level 1: Recall	NT 1.3 Demonstrate knowledge of common network hardware.	
Level 4: Extended Thinking	NT 1.4 Apply knowledge of local area network (LAN) physical media.	
Level 1: Recall	NT 1.5 Demonstrate knowledge of communication standards for networks.	
Level 4: Extended Thinking	NT 1.6 Plan, design, and create network architecture.	
Level 2: Skill/Concept	NT 1.7 Demonstrate knowledge of Network Operating Systems (NOS).	

<b>INDICATOR # NT 2. Perform network operating system installation and configuration.</b>		
<i>Webb Level</i>	<i>Sub-Indicator</i>	<i>Integrated Content</i>
Level 2: Skill/Concept	NT 2.1 Install a network operating system.	
Level 2: Skill/Concept	NT 2.2 Configure a network operating system.	

Level 4: Extended Thinking	NT 2.3 Troubleshoot and resolve network problems.	
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<b>INDICATOR # NT 3. Apply knowledge of network security systems.</b>		
<i>Webb Level</i>	<i>Sub-Indicator</i>	<i>Integrated Content</i>
Level 3: Strategic Thinking	NT 3.1 Apply proper procedures for securing a network.	
Level 2: Skill/Concept	NT 3.2 Demonstrate penetration testing and ethical hacking.	

<b>INDICATOR # NT 4. Demonstrate knowledge of common help desk tools, resources and techniques.</b>		
<i>Webb Level</i>	<i>Sub-Indicator</i>	<i>Integrated Content</i>
Level 2: Skill/Concept	NT 4.1 Use proper documentation and incident reporting.	
Level 3: Strategic Thinking	NT 4.2 Incorporate customer service skills.	

<b>INDICATOR # NT 5. Explore Careers in Network Technology.</b>		
<i>Webb Level</i>	<i>Sub-Indicator</i>	<i>Integrated Content</i>
Level 1: Recall	NT 5.1 Identify skills, interests, and abilities related to network technology.	

Level 2: Skill/Concept	NT 5.2 Compare personal interest survey results with network technology occupations.	
Level 3: Strategic Thinking	NT 5.3 Research labor market information for network technology.	
Level 2: Skill/Concept	NT 5.4 Demonstrate necessary job skills needed for information technology industries.	

<b>INDICATOR # NT 6. Maintain a safe and environmentally conscious environment.</b>		
<i>Webb Level</i>	<i>Sub-Indicator</i>	<i>Integrated Content</i>
Level 2: Skill/Concept	NT 6.1 Determine safe working practices to avoid or eliminate physical and electrical hazards.	
Level 1: Recall	NT 6.2 Research environmental considerations when disposing of material.	