

# Network and Security Fundamentals, CAS

Academic Year 2026-2027

## Program Description:

This certificate offers training that prepares individuals to install, configure, secure, and support endpoint, network, and wireless infrastructure for small to medium organizations. Certified professors provide real-world knowledge and hands-on labs focused on troubleshooting, network fundamentals, security best practices, and Wi-Fi essentials.

Students will take courses preparing them for the following industry-standard certifications:

- CompTIA A+
- CompTIA Network+
- CompTIA Security+
- CWNP Certified Wireless Technician (CWT)
- Microsoft's Endpoint Administrator Associate (Windows 11)

Graduates are prepared for roles such as Help Desk Technician, Desktop Support Specialist, Junior Network Administrator, or SOC Tier-1 Trainee. Capstone labs include assembling and hardening Windows/Linux systems, configuring switches/routers (VLANs, IPv4/IPv6, DHCP/DNS), setting up wireless networks and site surveys and applying baseline security controls (firewalls, access control, and incident response basics). This certificate can stand alone or stack into advanced credentials and degree pathways.

## Program Outcomes:

- Install, configure, and maintain hardware components and mobile devices
- Deploy, maintain, and secure wired and wireless devices based on business needs
- Utilize security technologies and tools, such as firewalls, intrusion detection systems, and endpoint security, to protect systems
- Use troubleshooting tools to diagnose and resolve technical problems

## Salary Information:

For the most current salary information, please refer to the Bureau of Labor Statistics "Occupational Outlook Handbook" found at [www.bls.gov/ooh/](http://www.bls.gov/ooh/).

## Program Admission Requirements:

The college adheres to an open admission policy which means applicants with a high school diploma or a GED are eligible for admission. Applicants with neither a high school diploma nor a GED may be admitted on a conditional basis.

## Contact Information:

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*Mountwest empowers students to learn and lead in the community and in the workforce.*

**Network and Security Fundamentals Major Code – CI50**

<b>Name:</b>	<b>ID Number 942-</b>
<b>Educational Counselor:</b>	
<b>Faculty Advisor:</b>	

**COURSES REQUIRED**

COURSE	REQUIREMENTS	SEM	HRS	GR	SUBSTITUTE/REPEAT CRS	SEM	CR
ENL 131	Business and Technical Writing		3				
IT 131 or IT 230	Introduction to Networking or Network Communications		4 or 3				
IT 120 or IT 121	Network Operating Systems or Fundamentals of Network Cybersecurity		4 or 3				
IT 170	Computer Essentials and App		4				
			14				
IT 115	Introduction to Programming		3				
IT 221	Advanced Operating Systems		3				
IT 224	Fundamentals of Network Security		3				
IT 225	Fundamentals of Wireless LANs		4				
MAT 120	Applied Professional Math <sup>1</sup>		3				
			16				
	Hours Required for Graduation		30				

<sup>1</sup> MAT 120 has a prerequisite of a minimum ACT Math score of 19 or SAT Math score of 510, or Accuplacer of 250 or students take MAT 120E.