

**CoLAB TalentReady IT Pathways
Cyber Technologist KSAs for Curriculum Alignment**

3. Vulnerabilities and Threats

	KSA Description	Knowledge, Skill, or Ability?	Bloom's Taxonomy Level?	Cross-cutting KSAs	Notes
a	Mitigate security threats (e.g., Adware, Viruses, Spyware, Trojan, Rootkits, Logic bomb, Botnets, Ransomware, Polymorphic malware) using tools.	Skill	4		
b	Use identification techniques and understand identification technologies (IOCs).	Knowledge	3		
c	Demonstrate and recognize common cyber-attack mechanisms.	Skill	3		
d	Describe and discover vulnerabilities.	Knowledge	3		
e	Mitigate network attacks. (e.g., Man-in-the-middle, DDoS, DoS, Replay, Smurf attack, Spoofing, Spam, Phishing, Spim, Spit and other attacks).	Ability	3	Cyber Specialist 2i	
f	Configure defenses for Password attacks (e.g., Brute Force, Dictionary attacks, Hybrid, Birthday attacks, Rainbow tables).	Skill	3		
g	Describe attack techniques (cyber kill chain and its components).	Knowledge	2		
h	Describe and understand Social Engineering attacks (e.g., Shoulder surfing, Dumpster diving, Tailgating, Impersonation, Hoaxes, Phishing, Spear Phishing, Whaling, Vishing, Principles, URL hijacking, Watering Hole).	Knowledge	2	Cyber Specialist 2k	
i	Understand concepts and tools of penetration testing.	Knowledge	2	Cyber Specialist 2l	
j	Identify threats using discovery tools and utilities-(e.g., Protocol analyzer, Vulnerability scanner, Honeypots, Honeynets, Port scanner).	Ability	3		