CYBERSECURITY FOUNDATION SYLLABUS

Course Description:

In this course students will learn fundamental principles associated with the current cybersecurity landscape and identify concepts required to recognize and potentially mitigate attacks against enterprise networks as well as mission critical infrastructure. Students will also learn how to initially setup and configure security zones, authentication, and policies on a next generation firewall. Students will also be introduced to artificial intelligence and the role it plays in cybersecurity today.

Course Domains:

- Cybersecurity Landscape
- Cybersecurity Threats
- Cyber Threats, Attacks, and Techniques
- Cybersecurity Models and Design Principles
- Security Operating Platform
- Artificial Intelligence in Cybersecurity

Course Objectives:

- Discover modern computing trends and application threat vectors.
- Configure a network interface and test for connectivity.
- Identify cloud computing and software-as-a-service (SaaS) application challenges.
- Review cybersecurity industry regulations and standards.
- Explore recent cyberattacks and their impact on business.
- Review attacker profiles, motivations and the Cyber-Attack Lifecycle.
- Recognize high-profile cybersecurity attacks and Advanced Persistent Threats.
- Identify malware types, vulnerabilities, exploits, spamming and phishing attacks.
- Configure and test a malware analysis security profile.
- Describe how bots and botnets are used to attack enterprise networks.
- Explore Zero Trust design principles, architecture, capabilities, and implementation.
- Review perimeter network security strategies, policies, models, and trust boundaries.
- Setup and configure inside, outside and DMZ security zones on a NGFW.
- Create and test an authentication policy on a next generation firewall.
- Review capabilities of the Security Operating Platform and components.
- Discover how to secure the cloud with Prisma Access, SaaS, and Cloud.
- Apply two-factor authentication on the next generation firewall (NGFW).
- Configure the NGFW to allow only trusted applications.
- Identify and examine artificial intelligence (AI) as it relates to cybersecurity.
- Examine cybersecurity machine learning (ML) and large language models (LLM) with AI.