MGT512: **Security Leadership Essentials for Managers**

GSLC
Security Leadership
giac.org/gslc

5 Day Program | 30 CPEs | Laptop Required

You Will Be Able To

- Become an effective information security manager
- Get up to speed quickly on information security issues and terminology
- Establish a minimum standard of security knowledge, skills, and abilities
- Speak the same language as technical security professionals

"This course was very relevant to my new role as Director of IT."

— Brian Harris, **Jackson EMC**

Security managers need both technical knowledge and management skills to gain the respect of technical team members, understand what technical staff are actually doing, and appropriately plan and manage security projects and initiatives. This is a big and important job that requires an understanding of a wide array of security topics.

This course empowers you to become an effective security manager and get up to speed quickly on information security issues and terminology. You won't just learn about security, you will learn how to manage security.

To accomplish this goal, MGT512 covers a wide range of security topics across the entire security stack. Data, network, host, application, and user controls are covered in conjunction with key management topics that address the overall security lifecycle. This also includes governance and technical controls focused on protecting, detecting, and responding to security issues.

This approach prepares you to:

- Make sense of different cybersecurity frameworks
- Understand and analyze risk
- Understand the pros and cons of different reporting relationships
- Manage technical personnel
- Build a vulnerability management program
- Inject security into modern DevOps workflows
- Strategically leverage a SIEM
- Change behavior and build a security-aware culture
- Effectively manage security projects
- Enable modern security architectures and the cloud

MGT512 uses case studies, group discussions, team-based exercises, and in-class games to help students absorb both technical and management topics.

"MGT512 is valuable because it is relevant/current to the security landscape from my management vantage point."

— Michael Bradley, **Prudential Financial**

Available Training Formats

Live Training

Live Events
sans.org/information-security-training/by-location/all

Summit Events
sans.org/cyber-security-summit

Private Training
sans.org/private-training

Online Training

OnDemand
sans.org/ondemand

Simulcast
sans.org/simulcast

Section Descriptions

SECTION 1: Building Your Program

The course starts with a tour of the information and topics that effective security managers and leaders must know to function in the modern security environment. This includes an understanding of the different types of cybersecurity frameworks available to structure your security team and program. Risk is central to effective information security management, and key risk concepts are discussed to lay the foundation for effective risk assessment and management. Security policy is a key tool that security managers use to manage risk. We'll cover approaches to policy to help you plan and manage your policy process. Finally, security functions, reporting relationships, and roles and responsibilities are discussed to give the advancing manager a view into effective security team and program structure.

TOPICS: Security Frameworks; Understanding Risk; Security Policy; Program Structure

SECTION 2: Protecting Data and Networks

Day 2 provides foundational knowledge to protect data and networks. This includes building an understanding of cryptography concepts, encryption algorithms, and applications of cryptography. Since encrypting data alone is not sufficient, the distinction between privacy and security is discussed to give managers a primer on key privacy concepts. Finally, a thorough discussion of network security is modeled around the various layers of the network stack. This allows managers to gain a deeper understanding of what their teams are talking about, what vendors are selling, and where various issues and protections lay within the seven layers of the network model.

TOPICS: Data Protection; Privacy Primer; Network Security

SECTION 3: Protecting and Patching Systems

Day 3 is focused on protecting and patching systems. This includes coverage of host security that encompasses endpoint and server security along with malware and attack examples. Modern infrastructure as code approaches and tools are also discussed as ways to automate consistent deployment of standard configurations. Managers must also be knowledgeable about software development processes, issues, and application vulnerabilities. Coverage includes an overview of the secure SDLC, OWASP Top Ten, and leading-edge development processes built on DevOps. Managers must also understand physical security controls that, when not implemented appropriately, can cause technical security controls to fail or be bypassed. All of these issues and corresponding vulnerabilities must be appropriately managed. This leads to a discussion on building a vulnerability management program and the associated process for successfully finding and fixing vulnerabilities.

TOPICS: Host Security; Application Security; Physical Security; Vulnerability Management

SECTION 4: Leading Modern Security Initiatives

Day 4 covers what managers need to know about leading modern security initiatives. Security awareness is a huge component of any security program that is focused on driving activities that lead to changes in human behavior and creating a more risk-aware and security-aware culture. For any project or initiative, security leaders must also be able to drive effective project execution. Having a well-grounded understanding of the project management process makes it easier to move these projects forward. The cloud is a major initiative that many organizations are either tackling now or planning to undertake. To get ready for these initiatives, an overview of Amazon Web Services (AWS) is provided to serve as a reference, along with a discussion of key cloud security issues based on the Cloud Security Alliance guidance. The cloud, the rise of mobile devices, and other factors are highlighting weaknesses in traditional, perimeter-oriented security architectures. This leads to a discussion of the Zero Trust Model. To execute such new initiatives security leaders must also develop negotiation skills and the ability to manage highly technical team members.

TOPICS: Security Awareness; Project Management; Cloud Security; Modern Security Architecture; Management Methods

SECTION 5: Detecting and Responding to Attacks

Day 5 is focused on detection and response capabilities. This includes gaining appropriate visibility via logging and monitoring, and thinking strategically about a Security Information and Event Management (SIEM) system. These logs are a core component of any Security Operations Center (SOC). The key functions of a SOC are discussed along with how to design, build, operate, and mature security operations for your organization. The incident response process is discussed in relation to identifying, containing, eradicating, and recovering from security incidents. This leads into a discussion of longer-term disaster recovery and business continuity planning. Finally, the course ends with a war game that simulates an actual incident. This tabletop simulation contains a number of injects or points at which students are presented with additional information to which they can respond. After dealing with the incident itself, the simulation concludes with a game focused on choosing appropriate security controls to mitigate future incidents.

TOPICS: Logging and Monitoring; Security Operations Center, Incident Response; Contingency Planning; War Game

Who Should Attend

- Security Managers
  - Newly appointed information security officers
  - Recently promoted security leaders who want to build a security foundation for leading and building teams
- Security Professionals
  - Technically skilled security administrators who have recently been given leadership responsibilities
- Managers
  - Managers who want to understand what technical people are telling them
  - Managers who need an understanding of security from a management perspective

Course Author Statement

"I have found that technical professionals who are taking on management responsibility need to learn how to convey security concepts in ways that non-technical people can understand. At the same time, managers who are new to security need to learn more about the different domains of cybersecurity. In both cases, there is a need to learn about the work of managing security. That is why this course focuses on the big picture of securing the enterprise, from governance all the way to the technical security topics that serve as the foundation for any security manager. Ultimately, the goal of the course is to ensure that you, the advancing manager, can make informed choices to improve security at your organization."

-Frank Kim

Course Preview

available at: **sans.org/demo**