

CATALOG

TRAINING COURSES

Catalog of instructor-led and web-based training

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Introduction

Course listings

The Mandiant courses in this catalog address essential cyber security skills that use free, open-source or existing customer technologies.

Instructor-led training

Instructor-led training is presented by a live instructor, either in-person or via a virtual classroom. Instructor-led training includes hands-on labs designed to accelerate the acquisition of practical skills.

All of our instructors are security professionals with years of security experience working on the frontlines of major cyber incidents around the world.

The duration of a single instructor-led training course can range from a half-day to five days.

Web-based training

Web-based training (WBT) are self-paced online courses that can be accessed at any time, from any location. Learners may pause and resume training as their schedule allows. The training is practical and abbreviated; it does not contain hands-on labs or exercises.

Our web-based training is designed to work in modern desktop browsers (Chrome, Firefox, Safari, Internet Explorer 10+ and Microsoft Edge) and tablets (such as iPad) without the use of browser plugins. Technology needs and exceptions are noted in course descriptions when applicable.

The duration of a single web-based training course can range from 45 minutes to a full day.

Experiential learning

Experiential learning uses a hands-on approach that recreates a network compromise situation and provides a holistic incident response experience. A cyber simulation range provides a consequence-free environment where participants are challenged to respond as a team to the latest advanced persistent threat (APT) attack methodologies.

The ability to expose teams to nation-state level attacks within a cyber range allows them to learn, practice, and innovate without experiencing an actual compromise. Experiential learning connects the training environment to the operating environment, which allows leadership to assess team performance and get an honest assessment of team readiness against relevant threats.

Delivery methods by course

Onsite ILT. An onsite instructor-led course delivered at your organization’s office.

Offsite ILT. An offsite instructor-led course delivered at a third-party location.

Virtual ILT. A virtual (online) instructor-led course delivered exclusively to your organization.

Web-based training. A web-based (also on-demand or self-paced) training course accessible to your organization anytime, anywhere.

Public ILT. A public instructor-led course delivered at a Mandiant office or third-party classroom. It may include attendees from many different organizations.

Public VILT. A public virtual (online) instructor-led course which may include attendees from many different organizations.

TABLE 1. Cyber security training from Mandiant.

	Onsite ILT	Offsite ILT	Virtual ILT	Web-Based Training	Public ILT (Per Seat)	Public VILT (Per Seat)
Advanced Red Teaming Techniques: Malware Authoring and Repurposing	x	x				
Analytic Tradecraft Workshop	x	x	x		x	x
Audits and Compliance in the Cyber Domain	x	x				
Business Email Compromise	x	x	x		x	x
Combined Windows-Linux Enterprise Incident Response	x	x	x			
Creative Red Teaming	x	x	x		x	x
Cyber Intelligence Foundations	x	x	x	x	x	x
Intelligence Research I—Scoping	x	x	x	x		
Intelligence Research II—Open Source Intelligence (OSINT)	x	x	x	x		
Cyber Intelligence Production	x	x	x	x		
Cyber Security Awareness	x	x	x	x	x	x
Cyber Security Operations and Organization	x	x	x		x	x
Cyber Security Policy and Implementation	x	x				
Digital Forensics and Incident Response for PLCs	x	x				
Essentials of Malware Analysis	x	x	x		x	x
Fundamentals of Cyber Security	x	x				
Fundamentals of Industrial Control Systems (ICS) Security	x	x	x		x	x
Hunt Mission Workshop	x	x	x		x	x
Introduction to Cyber Crime for Executives	x	x	x		x	x
Introduction to Threat Intelligence and Attribution	x	x	x		x	x

TABLE 1. Cyber security training from Mandiant.

	Onsite ILT	Offsite ILT	Virtual ILT	Web-Based Training	Public ILT (Per Seat)	Public VILT (Per Seat)
Linux Enterprise Incident Response	x	x	x		x	x
macOS Malware Analysis for Reverse Engineers	x	x				
Malicious Documents Analysis	x	x	x			
Malware Analysis Crash Course	x	x	x		x	x
Malware Analysis Master Course	x	x				
Mandiant Security Validation Security Instrumentation Platform Bootcamp	x	x	x			
Network Traffic Analysis	x	x	x	x	x	x
Practical Mobile Application Security	x	x				
Router Backdoor Analysis	x	x				
Security and the Software Development Lifecycle	x	x	x		x	x
Senior Executive Mentorshop Program	x	x				
Threatspace: Real-World Attack Scenarios	x	x	x			
Windows Enterprise Incident Response	x	x	x	x	x	x

Introductory Courses

Introduction to Cyber Crime for Executives

Security breaches transform calm working environments into high-stress battle zones. Informed executives are better equipped to understand the threat and make corresponding decisions smartly and quickly.

This course is designed to educate senior leaders about cyber crime and incident response. Learners will review a scenario based on real-world intrusions by a sophisticated attacker, examining tactics and technologies from both the attacker's and victim's perspectives. This scenario illustrates the most common method that attackers use to establish a foothold and remain undetected in the victim's network.

The course also covers the pros and cons of follow-up actions available to the victim and provide critical insight into the many issues investigators and victim organizations face when defending networks and responding to security breaches.

Learning objectives

After completing this course, learners should be able to:

- Understand how attackers defeat defenses and compromise networks
- Explore the most common network defense posture assumed by victims
- Collect electronic evidence
- Understand how investigators analyze data and use findings to resolve incidents
- Grasp the challenges an organization faces after its computer security defenses are breached

Who should attend

Executives, security staff, corporate investigators or other staff who need a general understanding of network security and network operations.

Delivery method

In-classroom or virtual instructor-led training

Duration

1 day (in-person delivery)

1 day (virtual delivery)

Cyber Security Operations and Organization

This course is designed to educate senior leaders about cyber security operations, how to organize and equip the Security Operations Center, and the roles different departments play to defend the enterprise. The course also explains how incident response, threat hunting, and cyber intelligence provide insights to enterprise architecture and engineering and how to use those insights to design security controls to defend the network by detecting security incidents and responding to them before they turn into breaches.

Participants will learn how to augment their cyber security staff by training all employees to recognize and stop threats at the perimeter before they become breaches. They will review the incident response process and learn how threat intelligence influences the threat hunting process.

Learning objectives

After completing this course, learners should be able to:

- Understand how to effectively write, publish, enforce and socialize security policy
- Explore common risk management principals and establish a risk management program
- Understand basic security architecture, know what questions to ask during architecture planning, and learn how to integrate cyber security principles in enterprise architecture
- Apply a robust vulnerability management program to help reduce their attack surface
- Discuss how to establish a well-organized and effective security awareness program
- Understand the challenge an organization faces after its computer security defenses are breached

Who should attend

Cyber security directors, managers, senior cyber security analysts, and information technology leaders in cyber security roles or related leadership positions.

Prerequisites

A solid understanding of security operation center operations and functional roles is recommended, but not required.

Delivery method

In-classroom and virtual instructor-led training

Duration

3 days (in-person delivery)

4 days (virtual delivery)

Cyber Security Awareness

This three-day course provides an overview of cyber security threats along with the fundamentals of a strong cyber security program. It is designed for both non-technical and technical learners who want to understand how threat actors see their targets, and it shares methods to help mitigate risks.

Learners will be introduced to foundational elements of cyber security programs, including security governance to establish a security framework, and ways to align the security program with business objectives. Security risk management, measurement and communications will also be covered. Security architecture topics will address common security practices and tools used to monitor and protect mature organizations. Cyber defense topics such as building an incident response plan will also be discussed, alongside examples of incident response methodologies.

Learning objectives

After completing this course, learners should be able to:

- Have enhanced awareness of today's threat landscape
- Understand common attacker methodologies
- Understand how an attacker enters, persists, and exfiltrates data from an organization via the attack lifecycle
- Establish governance that will provide guidance and oversight to the cyber security program
- Write an effective cyber security mission statement, vision statement, and strategic plan
- Understand how a cyber security risk program enables the business to make informed, risk-based decisions
- Define the basic security architecture necessary to protect any organization
- Understand the most common technologies used by modern cyber security programs
- Understand the foundational components of a strong cyber security program

Who should attend

Managers, technical staff, and non-technical staff in cyber security roles, or other roles supporting cyber security functions.

Prerequisites

A working understanding of basic information security principles is a plus, but not required.

Delivery method

In-classroom or virtual instructor-led training

Duration

2 days (in-person delivery)

3 days (virtual delivery)

Fundamentals of Industrial Control Systems (ICS) Security

This three-day course provides IT security professionals and ICS/OT engineers interested in ICS/OT security with the fundamental knowledge and skills required to build and expand an ICS/OT security team.

Learners will become familiar with ICS/OT security concepts, secure architecture, threat models and ICS/OT security standards and best practices. The course will also discuss today's security trends and the current threat landscape. Throughout the course, exercises and demonstrations inspired by actual cases and incidents in the ICS world will enable learners to advance their knowledge in their day jobs.

Learning objectives

After completing this course, learners should be able to:

- Understand ICS/OT security history, today's trends and threat landscape
- Discuss ICS/OT standards and best practices: NIST SP800-82, IEC62443, MITRE ATT&CK for ICS framework
- Describe the Purdue model of architecture, defense in depth, and secure ICS/OT network zoning and segmentation.
- Understand the elements of effective ICS/OT security monitoring and incident response programs
- See how a set of selected of useful ICS/OT security tools could be used.

Who should attend

IT security professionals and ICS/OT engineers developing a ICS/OT security foundation.

Prerequisites

Knowledge of ICS, DCS, SCADA, Modbus, OPC, IP address and IP packet.

Delivery method

In-classroom and virtual instructor-led training

Duration

2 days (in-person delivery)

3 days (virtual delivery)

Technical requirements

Recommended Windows 7 or higher to install Wireshark and NetworkMiner (free version). Students may use macOS if they can successfully install both Wireshark and NetworkMiner (free version). If not, we recommend installing Windows on a VM.

Fundamentals of Cyber Security

This five-day course provides a managerial perspective of contemporary computer and network security issues. The course gives learners the knowledge to design, implement, and maintain a network security plan that successfully defends a network from malicious or accidental intrusion.

Learning objectives

After completing this course, learners should be able to:

- Explain the concepts of information systems security as applied to an IT infrastructure
- Describe how malicious attacks, threats, and vulnerabilities impact an IT infrastructure
- Explain the importance of critical contributors to the effective implementation of security policy, such as access controls, operations, administration, security audits, testing, and monitoring
- Describe the principles of risk management, common response techniques, and issues related to recovery of IT systems
- Explain how businesses use cryptography to maintain information security
- Analyze why network principles and architecture are important to security operations
- Explain how attackers compromise systems, and what networks and defenses are used by organizations
- Apply international and domestic information security standards and compliance laws to real-world implementation in both the private and public sector

Who should attend

Governance, risk, compliance, and IT professionals, as well as anyone else who wants to understand how cyber security relates to their profession.

Prerequisites

A working understanding of basic information security principles is a plus, but not required.

Delivery method

In-classroom instructor-led training

Duration

5 days

Cyber Security Policy and Implementation

This five-day course teaches learners how to manage information security policies and frameworks, how to establish their needs, and how to identify potential challenges around those policies in an organizational environment. Learners will explore policy implementation issues and ways to overcome barriers to implementation.

Effective policy design and maintenance will be discussed along with frameworks that organizations can use to help with risk management and compliance. Finally, a review of U.S. compliance laws and associated Information Security requirements will be conducted.

Learning objectives

After completing this course, learners should be able to:

- Identify the role of an information systems security (ISS) policy framework in overcoming business challenges
- Analyze how security policies help mitigate risks and support business processes in various domains in the information technology (IT) infrastructure
- Describe the components and basic requirements for creating a security policy framework
- Describe the different methods, roles, responsibilities and accountabilities of personnel, along with the governance and compliance of security policy framework
- Describe the different ISS policies associated with the user domain, IT infrastructure, and risk management
- Describe different issues related to implementing and enforcing ISS policies
- Describe the different issues related to defining, tracking, monitoring, reporting, automating, and configuring compliance systems and emerging technologies

Who should attend

Security managers, project managers, system administrators, and auditors. Personnel responsible for the protection of corporate resources or those involved in the creation and maintenance of security policy.

Delivery method

In-classroom instructor-led training

Duration

5 days

Audits and Compliance in the Cyber Domain

This five-day course trains learners on concepts associated with cyber security compliance and scope of audits. This course will also detail the various tools, techniques, and frameworks that can aid in the auditing process. Learners will be able to describe auditable domains in an organization, as well as the end-to-end process of an audit, including how to prepare, conduct, and complete an audit report.

Learning objectives

After completing this course, learners should be able to:

- Describe the role of ISS compliance in relation to U.S. compliance laws
- Explain the use of standards and frameworks in a compliance audit of an IT infrastructure
- Describe the components and basic requirements for creating an audit plan to support business and system considerations
- Describe the different parameters required to conduct and report on IT infrastructure audit for organizational compliance
- Describe information security systems compliance requirements within the User, Workstation, LAN, Remote Access, and System/Application domains
- Describe the frameworks used to implement ISS compliance within the LAN-to-WAN and WAN domains
- List the qualifications, ethics, and certification organizations for IT auditors

Who should attend

Security and audit professionals, managers of audit or security teams, system and network administrators.

Delivery method

In-classroom instructor-led training

Duration

5 days

Intelligence and Attribution Courses

Introduction to Threat Intelligence and Attribution

This course is a fast-paced introduction to threat intelligence and attribution. It is designed to provide insight into attribution methodology and demonstrate the proper handling of threat intelligence information.

The course explores the main components of a threat group and shows how FireEye analysts use raw tactical intelligence and weigh connections and relationships to build a set of related activities that corresponds to a group of threat actors. Learners will become familiar with several factors they should consider when attributing related activity, and view real-world examples of research and pivoting. The course also examines operational and strategic intelligence, which helps determine the “who” and the “why” behind an attack.

The course also clarifies critical security terminology so learners can separate valuable information from hype.

Learning objectives

After completing this course, learners should be able to:

- Understand various definitions of threat intelligence and attribution
- Distinguish between tactical, operational and strategic threat intelligence
- Use tactical intelligence in the early stages of a cyber attack to evaluate data and correctly identify indicators that can be grouped into a set of related activity and attributed to a threat group
- Gain insight into common errors that can occur when analyzing common forensic artifacts and interpreting information presented from various sources
- Examine operational and strategic intelligence to determine the attribution and sponsorship of an attack operation
- Understand how attribution analysis can provide crucial context to threat activity that enables more informed decisions and improved resource allocation
- Understand why attributing cyber operations to a threat group can have significant implications – and even affect geopolitical dynamics
- Consider attribution from a threat group’s point of view

Who should attend

Cyber intelligence analysts, cyber threat analysts, security analysts and penetration testers.

Prerequisites

A working understanding of basic information security principles. A general understanding of threat intelligence and indicators of compromise (IoCs). Experience conducting forensic analysis, network traffic analysis, log analysis, security assessments and penetration testing, security architecture and system administration duties are a plus, but not required.

Delivery method

In-classroom or virtual instructor-led training

Duration

1 day (in-person delivery)

2 days (virtual delivery)

Hunt Mission Workshop

This fast paced entry-level workshop teaches the fundamentals of creating a structured, repetitive, and documented intel-led hunt in your own organization.

Students will learn how to employ a process framework to scope, execute, and validate the results of a network hunting operation and ensure each hunt mission is used to improve the organization's overall network security posture.

Learning objectives

After completing this course, learners should be able to:

- Describe how to integrate a hunt capability into their conventional cyber security operations
- Conduct gap analysis
- Utilize a hunt process framework for repeated, structured hunts
- Develop a custom workflow for their own environments

Who should attend

SOC managers, intelligence analysts, threat hunters, and anyone interested in creating a structured hunt program.

Delivery method

In-classroom or virtual instructor-led training

Duration

1 day (in-person delivery)

2 days (virtual delivery)

Cyber Intelligence Foundations

This three-day course explains how to apply the discipline of intelligence analysis to the cyber domain. The course covers strategic subjects such as the organizational role of cyber threat intelligence (CTI) and stakeholder analysis, as well as analytic practitioner skills development topics, such as understanding the intelligence lifecycle, developing raw data into minimally viable intelligence, and an introduction to cyber-intelligence attribution.

Learning objectives

After completing this course, learners should be able to:

- Clearly define cyber intelligence and the difference between intelligence and information, and articulate the role and importance of the cyber threat intelligence (CTI) capability
- Describe how the Intelligence Cycle functions as the working model for operationalizing intelligence
- Explain the two modes of analytic thinking and the use of structured analytic techniques
- Detail ways to counter analytic bias
- Explain threat model concepts and why we use them
- State the basics of malware composition
- Describe how intelligence analysts convert raw threat data into actionable intelligence
- Write well-structured intelligence reports and determine improvements to current communications

Who should attend

Managers of technical information security teams and analytic and technical professionals familiar with threat intelligence.

Prerequisites

Working understanding of basic information security principles and general understanding of threat intelligence.

Delivery method

In-classroom or virtual instructor-led training

Duration

3 days (in-person delivery)

4 days (virtual delivery)

What to bring

Learners may find it useful to bring a computer with link analysis software.

Intelligence Research I—Scoping

This foundational course teaches students to analyze, prioritize and fully understand requests for information (RFIs), and create a research plan that keeps their efforts on track.

Students will learn to uncover stakeholder intent so their intelligence analysis can be actioned. They will gain the ability to fully interpret implicit and explicit RFIs by identifying relevant context from intelligence requirements, organizational threat profiles, and key stakeholder analysis.

They will also learn how to use a research management system to organize research and avoid information overload, and assess source relevance and trust to ensure efficient and focused collections efforts.

Learning objectives

After completing this course, learners should be able to:

- Use a structured, repeatable four-step scoping process
- Generate context by referring to the organizational threat profile, key stakeholder analysis, and intelligence requirements (and how to proceed if these aren't available)
- Prepare for collections efforts by developing a research management system
- Proactively assess different kinds of information and sources to avoid wasting time on irrelevant or unreliable sources

Who should attend

This is a foundational level course for cyber practitioners who must scope and respond to formal and informal requests for information (RFI's).

Prerequisites

Students should have taken Cyber Intelligence Foundations or have equivalent knowledge.

Delivery method

In-classroom, virtual instructor-led training or on-demand

Duration

1 day (in-person delivery)

2 days (virtual delivery)

Intelligence Research II—Open Source Intelligence (OSINT)

This foundational course teaches students to identify and develop pivot points or leads in investigations across multiple use cases.

Students will review the basic functions of open source tools and learn when and why to use them in their research. They will apply their skills to several scenarios drawn from frontline experience, including executive-level RFIs, incident response investigations and information operation campaigns.

As they work through these scenarios in a lab environment, students will apply their knowledge of tools such as VirusTotal, Alienvault, PassiveTotal and Facebook, and use advanced search engine techniques.

Learning objectives

After completing this course, learners should be able to:

- Configure their systems to ensure good operational security (OPSEC) and safety while researching
- Keep detailed case notes and avoid getting lost in their research
- Think critically about when and why to use a particular tool within the context of a research task
- Navigate basic functions of several common OSINT tools
- Identify and use investigation pivot points and artifacts

Who should attend

This is a foundational level course for cyber practitioners who must safely and efficiently conduct research as part of investigations or in response to RFIs.

Prerequisites

Students should have taken Cyber Intelligence Foundations and Cyber Intelligence Research I—Scoping or have equivalent knowledge.

Delivery method

In-classroom, virtual instructor-led training or on-demand

Duration

2 day (in-person delivery)

4 days (virtual delivery)

Cyber Intelligence Production

This foundational course teaches students to convey analytic assessments and findings in their intelligence reports and briefings.

Students will be asked to deconstruct intelligence reporting of varying qualities and designed for different stakeholders to identify author intent, methods and findings.

During these exercises, students will be exposed to various examples of strategic, operational and technical intelligence products. Intelligence writing and briefing principles, including bottom line up front (BLUF), words of estimative probability (WEPs) and analytic judgments will all be introduced, along with potential pitfalls.

The course will also review best practices tied to citations, grammar, style and peer review. It concludes with an opportunity for students to take provided data and generate an original intelligence product and corresponding briefing.

Learning objectives

After completing this course, learners should be able to:

- Recognize the critical elements of an intelligence report, and create reports that include those elements
- Identify different types of cyber threat intelligence reports and specify how they differ in type, audience, scope and purpose
- Name, define, and apply various style guidelines
- Interpret a scenario and develop a high quality intelligence product that can be actioned by stakeholders

Who should attend

This is a foundational level course for cyber practitioners who must produce or assess intelligence reports and briefings.

Prerequisites

Students should have taken Cyber Intelligence Foundations, Cyber Intelligence I—Scoping and Cyber Intelligence II—Open Source Intelligence or have equivalent knowledge.

Delivery method

In-classroom, virtual instructor-led training or on-demand

Duration

1 day (in-person delivery)

2 days (virtual delivery)

Incident Response Courses

Windows Enterprise Incident Response

This intensive three-day course is designed to teach the fundamental investigative techniques needed to respond to today's cyber threats. The fast-paced course is built upon a series of hands-on labs that highlight the phases of a targeted attack, sources of evidence and principles of analysis. Examples of skills taught include how to conduct rapid triage on a system to determine whether it is compromised, uncover evidence of initial attack vectors, recognize persistence mechanisms and investigate an incident throughout an enterprise.

Although the course is focused on analyzing Windows-based systems and servers, the techniques and investigative processes are applicable to all systems and applications. The course includes detailed discussions of common forms of endpoint, network and file-based forensic evidence collection and their limitations as well as how attackers move around in a compromised Windows environment. The course also explores information management that enriches the investigative process and bolsters an enterprise security program. Discussion topics include the containment and remediation of a security incident, and the connection of short-term actions to longer-term strategies that improve organizational resiliency.

Learning objectives

After completing this course, learners should be able to:

- Describe the incident response process, including the threat landscape, targeted attack life cycle, initial attack vectors used by different threat actors, and phases of an effective incident response process
- Conduct system triage to answer key questions about what transpired across the enterprise during an incident
- Apply lessons learned to proactively investigate an entire environment (including metadata, registry, event logs, services, persistence mechanisms and artifacts of execution) at scale for signs of compromise
- Manage and effectively record information related to ongoing investigations and incidents
- Understand the role of the remediation phase in an enterprise investigation
- Understand how to hunt for threats using threat intelligence, anomaly detection and known threat actor techniques, tactics and procedures (TTPs)

Who should attend

Incident response team members, threat hunters and information security professionals.

Prerequisites

Background in conducting forensic analysis, network traffic analysis, log analysis, security assessments and penetration testing, or security architecture and system administration. Learners must have a working understanding of the Windows operating system, file system, registry and use of the command line. Familiarity with Active Directory and basic Windows security controls, plus common network protocols, is beneficial.

Delivery method

In-classroom or virtual instructor-led training

Duration

3 days (in-person delivery)

4 days (virtual delivery)

What to bring

Students are required to bring their own laptop that meets the following specs:

- Windows 7+
- Core i5 or equivalent processor
- 6 GB (preferably 8 GB) of RAM
- 25 GB free HDD space
- Virtual machines are acceptable provided at least 4 GB of RAM can be allocated
- Microsoft Office installed outside the VM
- Admin/install rights

Learners will receive a lab book and USB thumb drive containing all required class materials and tools.

Linux Enterprise Incident Response

This three-day course is designed to teach the fundamental investigative techniques needed to respond to today's sophisticated threat actors and their intrusion methods. This course includes a series of hands-on labs that highlight all phases of a targeted attack lifecycle, critical sources of attacker evidence and the forensic analysis required to conduct effective analysis.

Students will learn how to conduct rapid triage to determine system compromise, uncover evidence of initial attack vectors, recognize persistence mechanisms and develop indicators of compromise (IOCs) to further scope an incident.

Learning objectives

After completing this course, learners should be able to:

- Understand the stages of an effective incident response process including preparation, detection and analysis and remediation
- Recognize the most common forms, benefits and limitations of endpoint forensic evidence collection including forensic imaging and live response acquisition
- Identify and use critical sources of evidence to investigate and analyze a compromised Linux system including EXT3/EXT4 file systems, syslog, audit logs, memory, VPN and web shells
- Audit common Linux applications for databases and web servers including Oracle, MySQL, PostgreSQL, Apache and nginx
- Know how attackers move from system-to-system in a compromised Linux environment through their use of data including credentials, logons, remote command execution and shell artifacts
- Investigate a full environment, at-scale, for signs of compromise with the use of proactive hunting
- Analyze web logs to recognize and interpret common attacker techniques including obfuscation and encoding methods
- Improve logging visibility, prevent evidence tampering and reduce the attack surface by identifying common configuration parameters and logged events that aid effective investigations

Who should attend

Linux system administrators, incident responders, threat hunters and SOC analysts who need to understand the process involved in performing effective enterprise incident response for Linux systems.

Delivery method

In-classroom or virtual instructor-led training

Duration

3 days (in-person delivery)

4 days (virtual delivery)

What To bring

Students are required to bring their own laptop that meets the following specs:

- Windows 7+ and MacOS 10.11+
- VMware or VirtualBox installed on system with 2 GB of memory and 2 CPU cores dedicated for the VM (hypervisor software on the USB will be provided for students)
- 50 GB of free HDD space reserved for the VM
- Microsoft Office installed (recommended)
- Admin/install rights
- Wireless connectivity (recommended)

Combined Windows-Linux Enterprise Incident Response

Attacks against computer systems continue to increase in frequency and sophistication. To effectively defend data and intellectual property, organizations must have the ability to rapidly detect and respond to threats. This intensive three-day course is designed to teach the fundamental investigative techniques needed to respond to today's landscape of threat actors and intrusion scenarios.

The class is built upon a series of hands-on labs that highlight the phases of a targeted attack, key sources of evidence, and the forensic analysis know-how required to analyze them. Students will learn how to conduct rapid triage on a system to determine if it is compromised, uncover evidence of initial attack vectors, recognize persistence mechanisms, develop indicators of compromise to further scope an incident, and much more.

Learning objectives

After completing this course, learners should be able to:

- Describe the incident response process, including the threat landscape, targeted attack life cycle, initial attack vectors used by different threat actors, and phases of an effective incident response process
- Conduct system triage to answer key questions about what transpired across the enterprise during an incident
- Apply lessons learned to proactively investigate an entire windows environment (including metadata, registry, event logs, services, persistence mechanisms and artifacts of execution) at scale for signs of compromise
- Identify and use critical sources of evidence to investigate and analyze a compromised Linux system including EXT3/EXT4 file systems, syslog, audit logs, memory, VPN and web shells
- Audit common Linux applications for databases and web servers including Oracle, MySQL, PostgreSQL, Apache and nginx
- Know how attackers move from system-to-system in a compromised Linux environment through their use of data including credentials, logons, remote command execution and shell artifacts
- Analyze web logs to recognize and interpret common attacker techniques including obfuscation and encoding methods
- Manage and effectively record information related to ongoing investigations and incidents
- Understand the role of the remediation phase in an enterprise investigation
- Improve logging visibility, prevent evidence tampering and reduce the attack surface by identifying common configuration parameters and logged events that aid effective investigations
- Understand how to hunt for threats using threat intelligence, anomaly detection and known threat actor techniques, tactics and procedures (TTPs)

Who should attend

This course is intended for students with some background in conducting security operations, incident response, forensic analysis, network traffic analysis, log analysis, security assessments & penetration testing, or even security architecture and system administration duties. It is also well suited for those managing CIRT / incident response teams, or in roles that require oversight of forensic analysis and other investigative tasks.

Delivery method

In-classroom or virtual instructor-led training

Duration

5 days (in-person delivery)

7 days (virtual delivery)

What to bring

Students are required to bring their own laptop that meets the following specs:

- Laptop with VMWare installed (VMWare player meets the requirement)
- Specs: Windows 7+ or MacOS 10.11+
- 16GB+ memory
- Core i7+ CPU
- 25GB+ Free HDD space

Digital Forensics and Incident Response for PLCs

Attacks against industrial control systems(ICS) are on the rise. To effectively respond to this emerging threat, organizations must be aware of the challenges that come along with performing digital forensics and incident response (DFIR) for ICS. This course is designed to give ICS security personnel the skills needed to identify and understand threats targeting ICS devices that use embedded operating systems such as VxWorks and Windows CE.

This fast-paced technical course offers learners hands-on experience investigating targeted attacks and guides them through the steps required to analyze and triage compromised ICS.

Learning objectives

After completing this course, learners should be able to:

- Learn to investigate targeted attacks against ICS
- Understand the steps required to triage compromised ICS

Who should attend

Incident response team members, threat hunters, information security professionals and industrial control system security professionals.

Prerequisites

Background in ICS, PLCs and other embedded devices and operating systems. Background in forensic analysis, network traffic analysis, log analysis, security assessments and penetration testing, security architecture, and system administration.

Delivery method

In-classroom instructor-led training

Duration

1 day

What to bring

Students are required to bring their own laptop that meets the following specs:

- Windows 7+ or Windows 7 Virtual machine
- VMware Player or Workstation
- 20 GB of free HDD space
- Wireless connectivity

Network Traffic Analysis

Sophisticated attackers frequently go undetected in a victim's network for an extended period. Attackers can blend their traffic with legitimate traffic that only skilled network analysts know how to detect. This course shows learners how to identify malicious network activity.

The course provides an overview of network protocols, network architecture, intrusion detection systems, network traffic capture and traffic analysis. Learners review the types of network monitoring and the tools commonly used to analyze captured network traffic. The course also explores the best techniques for investigating botnets and how to use honeypots in network monitoring.

The course includes lectures and hands-on lab sessions to reinforce technical concepts.

Learning objectives

After completing the course, learners should be able to:

- Understand the network monitoring and incident response processes, and why it's critical in today's network environments. Discuss the pros and cons of statistical, connection, full content and event monitoring and tools
- Perform event-based monitoring using Snort
- Minimize network traffic with the Snort rule structure and custom rule creation
- Review Snort alerts using the Sguil front end

Who should attend

Information technology and security staff, corporate investigators and other staff members who need to understand networks, network traffic, network traffic analysis and network intrusion investigations.

Prerequisites

A basic understanding of TCP/IP and Windows and UNIX platforms. Familiarity with security terminology and a working knowledge of Wireshark is also recommended.

Delivery method

In-classroom, virtual instructor-led training, and web-based training

Duration

3 days (in-person delivery)

4 days (virtual delivery)

What to bring

Students are required to bring their own laptop that meets the following specs:

- Windows 7+
- Core i5 or equivalent processor
- 6 GB (preferably 8 GB) of RAM
- 25 GB free HDD space
- Virtual machines are acceptable provided at least 4 GB of RAM can be allocated

Learners will receive a lab book and USB thumb drive containing all required class materials and tools, and must be able to either boot from USB or have VMware Player.

Malware Analysis Courses

Essentials of Malware Analysis

This course provides a beginner-level introduction to the tools and methodologies used to perform malware analysis on executables found in Windows systems using a practical, hands-on approach. The course introduces learners to disassembly, preparing them for topics covered in more advanced courses. This content is taught by FLARE malware analysts who are experienced in analyzing a diverse set of malware.

Learning objectives

After completing the course, learners should be able to:

- Quickly perform a malware autopsy using a variety of techniques and tools without running the malware
- Analyze running malware by observing file system changes, function calls, network communications and other indicators
- Review the basics and build a foundation of the x86 assembly language
- Recognize code constructs in the disassembly
- Use IDA Pro, the main tool for disassembly analysis

Who should attend

Information technology staff, information security staff, corporate investigators and others who need to understand how malware functions operate and the processes involved in malware analysis.

Prerequisites

General knowledge of computer and operating system fundamentals. Exposure to computer programming fundamentals and Windows Internals experience (recommended).

Delivery method

In-classroom or virtual instructor-led training

Duration

2 days (in-person delivery)

4 days (virtual delivery)

What to bring

Students are required to bring their own laptop that meets the following specs:

- VMware Workstation 10+ or VMware Fusion 7+
- 30 GB of free HDD space

Malware Analysis Crash Course

This course provides a rapid introduction to the tools and methodologies used to perform malware analysis on executables found in Windows systems using a practical, hands-on approach. The course explains how to find the functionality of a program by analyzing disassembly and seeing how it modifies a system and its resources as it runs in a debugger.

The course discusses how to extract host- and network-based indicators from a malicious program. It also covers dynamic analysis and the Windows APIs most often used by malware authors. Each section includes in-class demonstrations and hands-on labs with real malware so learners can apply their new skills.

Learning objectives

After completing this course, learners should be able to:

- Quickly perform a malware autopsy
- Understand basic yet effective methods for analyzing running malware in a safe environment, such as virtual machines
- Understand the basics of the x86 assembly language
- Use IDA Pro, the main tool for disassembly analysis
- Understand a wide range of Windows-specific concepts that are relevant to analyzing Windows malware
- Monitor and change malware behavior, as it runs, at a low level

Who should attend

Software developers, information security professionals, incident responders, computer security researchers, corporate investigators and others who need to understand how malware operates and the processes involved in performing malware analysis.

Prerequisites

Excellent knowledge of computer and operating system fundamentals. Computer programming fundamentals and Windows Internals experience are highly recommended.

Delivery method

In-classroom or virtual instructor-led training

Duration

3 days (in-person delivery)

4 days (virtual delivery)

What to bring

Students are required to bring their own laptop that meets the following specs:

- VMware Workstation 10+ or VMware Fusion 7+
- 30 GB of free HDD space

Malicious Documents Analysis

This course provides a rapid introduction to the file formats, tools, and methodologies used to perform malware analysis on malicious documents using a practical hands-on approach. Students will learn to pinpoint and analyze the most suspicious document components and how to extract host and network-based indicators from them. Students will be taught common exploitation techniques used by malware authors and how to spot them within malicious documents. This course includes demonstrations and hands-on labs that contain real malware.

Learning objectives

After completing this course, learners should be able to:

- Dissect and analyze malicious document formats
- Extract network and host-based indicators
- Extract noteworthy components that require further isolated analysis
- Detect suspicious patterns and common exploitation techniques
- Utilize modern analysis tools including Offvis and O10 editor templates
- Disassemble and program ActionScript3 language (used in Flash)
- Create and automate custom tools for your specific organization

Who should attend

Malware researchers, software developers, information security professionals, incident responders, computer security researchers, corporate investigators and others who need to understand how malware operates and the processes involved in performing malware analysis.

Prerequisites

General knowledge of computer and operating system fundamentals. Exposure to programming fundamentals is recommended.

Delivery method

In-classroom instructor-led training

Duration

3 days (in-person delivery)

4 days (virtual delivery)

What to bring

Students are required to bring their own laptop that meets the following specs:

- VMware Workstation Pro 12.5 or newer (installed with the ability to run a VM)
- At least 30 GB of free HDD space

Advanced Red Teaming Techniques: Malware Authoring and Repurposing

Malware techniques used to perform malicious actions are often similar to those used by antivirus and security products. Understanding how to write and design malware helps security analysts rapidly identify patterns of code when investigating a malicious binary.

Knowing how to design and develop each part of a payload enables red team members to reuse, debug, fix, or rewrite a solution.

Students will learn how to produce a shellcode blob capable of loading and injecting multiple malicious binaries via techniques repurposed from existing malicious samples. This course includes APIs and techniques used to perform common malicious functionality and extends these techniques to produce reliable payloads that function across operating system versions and limit exposure to security products.

The hands-on labs for this course are development-focused through use of C and Intel Assembly.

Learning objectives

- After completing this course, learners should be able to:
- Develop malicious applications using the Windows SDK
- Create position independent code (PIC) using C and Intel Assembly
- Write malicious code to perform code injection and modify a running application in-memory
- Analyze and modify a malicious binary to reuse functionality
- Design and write reliable payloads across a variety of operating system versions
- Use proven techniques to execute injections, hooking, and fingerprinting across various systems

Who should attend

Software developers, information security professionals, incident responders, computer security researchers, corporate investigators and others who require an understanding of malware inner workings, crafting reliable shellcode and payloads, and rapid repurposing of malware samples.

Prerequisites

Advanced knowledge of computer and operating system fundamentals and Windows internals. Familiarity with reverse engineering, Windows SDK and proficiency at developing in C is recommended.

Delivery method

In-classroom instructor-led training

Duration

4 days

What to bring

Students are required to bring their own laptop that meets the following specs:

- VMware Workstation Pro 12.5 or newer (installed with the ability to run a VM)
- At least 30 GB of free HDD space

macOS Malware Analysis for Reverse Engineers

Most malware analysts and incident responders either lack the equipment or knowledge to dissect macOS malware. With increasing corporate use of macOS devices, organizations must be prepared to analyze malware and threats that target macOS.

This course uses a practical, hands-on approach to introduce the tools and methodologies learners need to analyze malware that targets the macOS platform.

Course topics include macOS specific static and dynamic analysis tools and techniques to quickly uncover host and network-based indicators, analysis of compiled Objective-C code and Cocoa applications using IDA Pro and the use of the lldb debugger in dynamic analysis. Demonstrations and hands-on labs with real malware will enable learners to immediately apply this knowledge.

Learning objectives

- Learn macOS internals relevant to malware analysis
- See how to create a safe malware analysis environment in macOS
- Explore the tools and methodologies used to perform basic analysis, and extract host and network-based indicators from malware without running it
- Discover tools and methodologies used to analyze malware behavior by executing it in a safe environment
- Acquire disassembly techniques specific to Objective-C executables
- Practice malware debugging in the macOS environment and how it can be used to monitor and change its behavior at run time

Who should attend

Malware analysts, incident responders, Intel analysts, information security staff, forensic investigators, or others requiring an understanding of how macOS specific malware works and how to analyze it.

Prerequisites

Training or experience in Windows malware analysis, familiarity with object-oriented programming, the x86 architecture, IDA Pro and Unix-like operating systems is required.

Delivery method

In-classroom instructor-led training

Duration

2 days

What to bring

Students are required to bring their own laptop that meets the following specs:

- MacBook with VMware Fusion 7+
- 30 GB of free HDD space
- Licensed copy of fully updated IDA Pro that supports x86_64 architecture (for any OS, as long as it's accessible on the MacBook)

Malware Analysis Master Course

Designed for experienced malware analysts, this course focuses on advanced topics related to combating a wider variety of more complex malware and malware defense mechanisms. It covers how to combat anti-disassembly, anti-debugging and anti-virtual machine techniques. It also discusses how to defeat packed and armored executables, analyze encryption and encoding algorithms and defeat various obfuscation techniques. Additional topics include malware stealth techniques (process injection and rootkit technology), analyses of samples written in alternate programming languages (C++) and popular software frameworks (.NET).

Learners will be taught to use existing tools and techniques as well as research and develop their own IDA Pro scripts and plugins. All concepts and materials are reinforced with demonstrations, real-world case studies, follow-along exercises and student labs to allow learners to practice new skills. Instructors are senior FLARE malware analysts who are experienced in fighting through state-of-the-art malware armor.

Learning objectives

After completing this course, learners should be able to: Understand how malware hides its execution, including process injection, process replacement and user-space rootkits

- Grasp how shellcode works, including position independence, symbol resolution and decoders
- Comprehend the inner workings and limitations of disassemblers such as IDA Pro as well as how to circumvent the anti-disassembly mechanisms that malware authors use to thwart analysis
- Automate IDA Pro using Python and IDC to help analyze malware more efficiently
- Understand how to combat anti-debugging, including bypassing timing checks, Windows debugger detection and debugger vulnerabilities
- Fool malware so it cannot detect what is running in your safe environment
- Understand how malware analysis is influenced by C++ concepts like inheritance, polymorphism and objects

- Recognize common C++ structures from the disassembly
- Use disassembler features to enhance the reverse engineering process of C++ binaries
- Unpack manually by studying various packer algorithms and generic techniques to quickly defeat them
- See how x64 changes the game for malware analysis, including how WOW64 works and the architecture changes from x86
- Grasp string obfuscation techniques that are commonly used by malware, then take malware communications and analyze network packet captures
- Reverse engineer .NET bytecode and work with obfuscation techniques used by attackers

Who should attend

Intermediate-to-advanced malware analysts, information security professionals, forensic investigators and others who need to understand how to overcome difficult and complex challenges in malware analysis.

Prerequisites

Robust skill set in x86 architecture and the Windows APIs. Exposure to software development is highly recommended. Completion of Malware Analysis Crash Course is recommended but not required.

Delivery method

In-classroom instructor-led training

Duration

5 days

What to bring

Students are required to bring their own laptop that meets the following specs:

- VMware Workstation Pro 12.5 or newer (installed with the ability to run a VM)
- At least 30 GB of free HDD space
- A licensed copy of IDA Pro that supports the MIPS architecture is recommended. The free version of IDA Pro will suffice.

Router Backdoor Analysis

With access to a router, an attacker can control the network and manipulate and copy traffic as needed. Router implants such as SYNful Knock, a serious and imminent threat, can be difficult to detect and analyze due to their location within the network. A direct analysis of the router image may be critical to mitigate a router-based attack, especially for edge routers positioned outside of network monitoring devices.

This course explains the purpose of the Cisco IOS image format, as well as how to modify the image. It describes how to effectively dissect an IOS image using IDA Pro for static analysis and how to debug a running router for active analysis. Course topics include how to configure and load a router for analysis, and take and analyze core memory dumps.

Learners will perform hands-on analyses of Cisco IOS images using a live router running in a lab environment. Hands-on labs include an opportunity to analyze and determine the function of backdoored router firmware.

Learning objectives

After completing this course, learners should be able to:

- Conduct hands-on Cisco IOS malware analysis
- Understand the MIPS architecture
- Understand Cisco IOS image formatting and how routers load the images
- Analyze an IOS image using IDA Pro
- Identify modifications to a Cisco IOS image and focus analysis efforts
- Obtain and analyze memory dumps of a running router
- Perform dynamic analysis on a live system

Who should attend

Intermediate-to-advanced malware analysts, information security professionals, forensic investigators and others who need to understand how to overcome difficult and complex challenges in malware analysis.

Prerequisites

Intermediate to advanced malware analysis skills, computer programming experience and comfort with IDA Pro.

Delivery method

In-classroom instructor-led training

Duration

2 days

What to bring

Students are required to bring their own laptop that meets the following specs:

- VMware Workstation, Server or Fusion
- At least 20 GB of free HDD space

Advanced Acquisition and Testing Techniques

Creative Red Teaming

FireEye Mandiant red teams have conducted hundreds of covert red team operations. This course draws on that knowledge to help learners improve their ability to prevent, detect, and respond to threats in an enterprise network.

Learners will better understand advanced threat actor behavior that Mandiant experts have observed through incident response investigations. Learners will also see how Mandiant red teams refine advanced attacker tools, tactics and procedures (TTPs) for use by red teams in their attempts to emulate advanced threat actors. Learners will develop the ability to think like an attacker and creatively use these TTPs to accomplish response goals while avoiding detection.

Mandiant red team leads conduct this fast-paced technical course with presentations and scenario-based labs based on frontline expertise and intelligence-based security research. Learners receive hands-on experience conducting covert cyber attack simulations that mimic real-world threat actors. They will learn how to bypass advanced network segmentation, multi-factor authentication and application whitelisting, abuse web applications, escalate privileges and steal data while circumventing detection methods.

Learning objectives

After completing this course, learners should be able to:

- Identify, fingerprint and compromise a target with custom-crafted payloads while bypassing antivirus (AV) detection
- Deploy creative tactics—from older techniques to newer ones—to maintain access to any compromised machine
- Understand the tools and methods attackers use to exploit the lowest-level user privileges to gain higher, administrative privileges and move laterally throughout a network while avoiding security alerts
- Avoid and bypass various challenges such as application whitelisting, encryption, multi-factor authentication, sandboxes and more
- Exfiltrate data from “secure” networks undetected, without triggering firewalls or generating alerts
- Identify the goals and challenges of managing a red team operation, including risk measurement and reporting

Who should attend

Red team members, penetration testers, defenders wanting to understand offensive tactics techniques and procedures (TTPs) and information security professionals looking to expand their knowledge base.

Prerequisites

A background in conducting penetration tests, security assessments, IT administration, and/or incident response. Working knowledge of the Windows operating system, file systems, registry and use of the Windows command line. Experience with, Active Directory, basic Windows security controls, common network protocols, Linux operating systems, Scripting languages (PowerShell, Python, Perl, etc.) and assessment of web applications using the OWASP top 10.

Delivery method

In-classroom or virtual instructor-led training

Duration

4 days (in-person delivery)

5 days (virtual delivery)

What to bring

Students are required to bring their own laptop that meets the following specs:

- USB port (for installing software provided on a USB stick)
- Ethernet port or adapter
- Local administrator rights to the host OS and VMs

Practical Mobile Application Security

Smartphones have become an integral component of peoples' lives, both personally and in the business world—but application security is suspect.

This four-day course is designed to teach students the fundamentals of mobile application security for Google Android and Apple iOS mobile operating systems. It provides learners with the methodology, tools, and experience to assess the security of mobile applications.

Learning objectives

After completing this course, learners should be able to:

- Describe device and application security models for the Android and iOS operating systems and their security features
- Build and configure a testing environment for both Android and iOS platforms with an awareness of jailbreaking, rooting, and other concepts
- Perform static analysis on APK and IPA files in a hands-on lab environment that covers Android Dalvik Bytecode, and Apple-compiled Swift and Objective-C assembly
- Understand what and where data should be stored, how it should be accessed, and what pitfalls are associated with improper data storage
- Analyze inter-process communication by interfacing with and fuzzing exposed components across both platforms
- Reliably intercept and modify network communications to bypass security features such as certificate pinning, taking into account the overlap and differences in mobile application API testing and traditional web application assessment
- Use common dynamic binary instrumentation (DBI) tools for application testing and data and code analyses in scenarios such as bypassing jailbreak/root detection or certificate pinning
- Compromise a test application, enumerate as many vulnerabilities as possible and consider recommendations for improving application security

Who should attend

Security engineers, application developers, and penetration testers.

Prerequisites

Background in security fundamentals, threat modeling, Linux CLI, object-oriented programming, and web application testing.

Recommended, but not required:

- ARM/AARCH64 assembly familiarity
- Java, Kotlin, Swift, or Objective-C programming experience
- Experience testing thick-client applications
- Web services (REST, SOAP, JSON) testing experience
- Delivery Method
- In-classroom instructor-led training

Duration

4 days

Security and the Software Development Lifecycle

Software developers and security professionals have historically had an adversarial relationship. Software developers may believe security professionals get in the way of productivity while security professionals know that vulnerabilities get introduced in the software development lifecycle.

Fortunately, the barriers between these two disciplines are breaking down as companies recognize the importance of introducing security early in the software development lifecycle. This course covers different software development methodologies as well as the different places that good security practices can be introduced in any software development methodology as well as how to implement them.

Learning objectives

After completing this course, learners should be able to:

- Demonstrate how security can be introduced into common software development methodologies
- Identify capabilities necessary to improve existing practices within their organizations
- Examine elements of a simplified methodology to apply those elements to methodologies and processes already in place in their organizations.
- Suggest security controls that can be applied within development processes in their own environment

Who should attend

Anyone who is now or may in the future be part of a software development project. This may be, for example, developers who want to know more about security, security people who want to understand software development processes or project managers who want to understand both better.

Delivery method

In-classroom or virtual instructor-led training

Duration

2 days (in-person delivery)

4 days (virtual delivery)

Workshops

Business Email Compromise

Business Email Compromise is a highly personalized two-to-four hour seminar in which students will develop the skills necessary to protect themselves and their organizations from email-based social engineering and malware.

The instructor will walk through a presentation of the technical information needed to avoid email threats, and will also host a Q&A session to ensure that your organization's specific concerns can be addressed.

Social engineering takes place in more than 90% of business compromises, and email is the most popular vector by far. Mandiant's Business Email Compromise training will help your organization be better protected from one of the greatest threats in the cyber security landscape.

Learning objectives

After completing this course, learners should be able to:

- Identify the risks associated with BEC
- Avoid common pitfalls which make you vulnerable to Phishing and other social engineering attacks
- Define key terms so that the audience can make informed decisions regarding their email safety

Who should attend

Any corporate employee in need of email security training or a refresher of the same.

Delivery method

In-classroom or virtual instructor-led training

Duration

2-4 hours (in-person delivery)

2-4 hours (virtual delivery)

Introduction to the Mandiant Security Instrumentation Platform

This two-day introduction to the Mandiant Security Instrumentation Platform provides hands-on experience with the platform to introduce core concepts and important modules. It provides a solid understanding of the platform and reinforces knowledge gained from the self-paced training series. The goal is to have participants be able to start using the platform effectively in their environment to improve their organization's security posture.

Learning objectives

After completing this course, learners should be able to:

- Explain the purpose of the Security Instrumentation Platform
- Install network and endpoint Actors
- Use the platform to test network and security controls, identify areas of improvement and monitor progress
- Run security content, including Actions, Sequences and Evaluations
- Evaluate test results and analyze essential takeaways
- Setup, configure and maintain AEDA monitors
- Analyze platform analytics and develop custom reports
- Explain Protected Theater
- Create custom security content
- Examine system administration, maintenance and troubleshooting features of the platform

Who should attend

Security professionals who will be using the Security Instrumentation Platform to manage and report their organization's systemic cyber security risk.

Delivery method

In-classroom or virtual instructor-led training

Prerequisites

Varies based on audience

Duration

2 days

Registration instructions

Contact validation-training@mandiant.com for more information, including prerequisites and upcoming class dates.

Exercises and Preparedness

Threatspace: Real-World Attack Scenarios

This intense three-day training covers the most modern, sophisticated attacks used by advanced persistent threat (APT) actors, and teaches students how to engage in effective analysis and incident response against real world threats.

After a brief classroom session, two days of hands-on exercises take students through examples of real adversary activity and the process of responding to a nation-state level threat—all without actual risk. Students will perform triage and analysis, create timelines of activity, and report findings in real-time.

Experienced incident response practitioners facilitate the exercise and share practical experiences from the field. All exercises are conducted on-site using a cloud-based cyber range.

Learning objectives

After completing this course, learners should be able to:

- Describe primary sources of data in incident response
- Perform triage and in-depth analysis of an affected enterprise network
- Effectively structure and organize a response team across multiple disciplines
- Identify malicious behavior and create useful timelines of activity

Who should attend

Incident responders at all skill levels, professionals who want to understand incident response in the context of APT attacks.

Prerequisites

Familiarity with the incident response concepts, experience as an incident response team member.

Delivery method

In-classroom or virtual instructor-led training

Duration

3 days

Senior Executive Mentorship Program

The FireEye Mandiant mentorship program is a one-on-one engagement that delivers high-level cyber security knowledge and understanding to organizational executives. By raising awareness of security risks and cyber attacks, it can help significantly reduce organizational risk.

Executives enrolled in this course will learn about critical cyber security concepts including international cyber law, the evolving role of government in cyber security operations, and the use of cyber threat intelligence as a force multiplier to limit business and organizational risk.

Learning objectives

After completing this course, learners should be able to:

- Describe the core concepts of today's cyber security landscape
- Explain the impact of cyber security on the decision making process in the modern enterprise
- Understand how leaders must operate to be successful in the threat landscape relevant to their vertical market
- Grasp the process by which frontline experts can improve an organization's risk posture

Who should attend

Executives and senior managers involved in the decision making processes for enterprises.

Delivery method

In-classroom instructor-led training

Duration

1 day

Learn more at www.mandiant.com/training

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About Mandiant

Since 2004, Mandiant has been a trusted partner to security-conscious organizations. Today, industry-leading Mandiant threat intelligence and expertise drive dynamic solutions that help organizations develop more effective programs and instill confidence in their cyber readiness.

MANDIANT