

THE MOST TRUSTED SOURCE FOR INFORMATION SECURITY TRAINING, CERTIFICATION, AND RESEARCH

# SANS

## Atlanta 2017

May 30 - June 4

PROTECT YOUR COMPANY AND ADVANCE YOUR CAREER  
WITH HANDS-ON, IMMERSION-STYLE

## INFORMATION SECURITY TRAINING

TAUGHT BY REAL-WORLD PRACTITIONERS

### Seven courses in:

CYBER DEFENSE  
DETECTION & MONITORING  
PENETRATION TESTING  
INCIDENT RESPONSE

DIGITAL FORENSICS  
ETHICAL HACKING  
MANAGEMENT

“This training has been valuable  
both to me and my career – the  
course material and the instructor  
are an awesome match.”

-CAMILLE CROSBY, THE WILLIAM CARTER COMPANY



GIAC-Approved Training

**SAVE  
\$400**

Register and pay by  
April 5th — Use code  
**EarlyBird17**

[www.sans.org/atlanta](http://www.sans.org/atlanta)

## SANS Instructors

SANS instructors are real-world practitioners who specialize in the subjects they teach. All instructors undergo rigorous training and testing in order to teach SANS courses. This guarantees that what you learn in class will be up to date and relevant to your job.

The SANS Atlanta 2017 lineup of instructors includes:



**Chris Christianson**  
Instructor  
@cchristianson



**G. Mark Hardy**  
Certified Instructor  
@g\_mark



**Seth Misenar**  
Senior Instructor  
@sethmisenar



**Michael Murr**  
Principal Instructor  
@mikemurr



**My-Ngoc Nguyen**  
Certified Instructor  
@MenopN



**Bryan Simon**  
Certified Instructor  
@BryanOnSecurity



**Peter Szczepankiewicz**  
Certified Instructor  
@\_sl4

## Evening Bonus Sessions

Take advantage of these extra evening presentations and add more value to your training. Learn more on page 8.

**KEYNOTE: Actionable Detects: Blue Team Cyber Defense Tactics**  
Seth Misenar

**The End of Banking as We Know It:  
How Crypto Currencies and e-Payments Are Breaking Up a Centuries-Old Monopoly**  
G. Mark Hardy

**Save \$400 when you register and pay by April 5th using code *EarlyBird17***

## Courses at a Glance

	TUE 5-30	WED 5-31	THU 6-1	FRI 6-2	SAT 6-3	SUN 6-4
SEC301 <b>Intro to Information Security</b>	Page 1					
SEC401 <b>Security Essentials Bootcamp Style</b>	Page 2					
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FORS78 <b>Cyber Threat Intelligence</b>	Page 5					
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MGT512 <b>SANS Security Leadership Essentials for Managers with Knowledge Compression™</b>	Page 7					

**Register today for SANS Atlanta 2017!**  
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Join the conversation:  
**#SANSAtlanta**

Five-Day Program  
 Tue, May 30 - Sat, June 3  
 9:00am - 5:00pm  
 30 CPEs  
 Laptop Required  
 Instructor: My-Ngoc Nguyen



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 WITH THIS COURSE

[www.sans.org/ondemand](http://www.sans.org/ondemand)

"This course was the perfect blend of technical and practical information for someone new to the field, and I would recommend it!"

-STEVE MECCO, DRAPER

"This training is very valuable as I start my position in IT security. There is so much to learn and many good concepts."

-AMY SWANSON,

TRUVEN HEALTH ANALYTICS

To determine if the SANS SEC301 course is right for you, ask yourself five simple questions:

- Do you have basic computer knowledge but are new to information security and in need of an introduction to the fundamentals?
- Are you bombarded with complex technical security terms that you don't understand?
- Are you a non-IT security manager (with some technical knowledge) who lays awake at night worrying that your company will be the next mega-breach headline story on the 6 o'clock news?
- Do you need to be conversant in basic security concepts, principles, and terms, even if you don't need "deep in the weeds" detail?
- Have you decided to make a career change to take advantage of the job opportunities in information security and need formal training/certification?

If you answer yes to any of these questions, the **SEC301: Introduction to Information Security** training course is for you. Jump-start your security knowledge by receiving insight and instruction from real-world security experts on critical introductory topics that are fundamental to information security. This completely revised five-day comprehensive course covers everything from core terminology to the basics of computer networks, security policies, incident response, passwords, and even an introduction to cryptographic principles.

This course is designed for students who have a basic knowledge of computers and technology but no prior knowledge of cybersecurity. The hands-on, step-by-step teaching approach will enable you to grasp all of the information presented even if some of the topics are new to you. You'll learn the fundamentals of information security that will serve as the foundation of your InfoSec skills and knowledge for years to come.

Authored by a security professional with over 30 years of experience in both the public and private sectors, SEC301 provides uncompromising real-world insight from start to finish. The course prepares you for the Global Information Security Fundamentals (GISF) certification test, as well as for the next course up the line, **SEC401: Security Essentials Bootcamp**. It also delivers on the SANS promise: ***You will be able to use the knowledge and skills you learn in SEC301 as soon as you return to work.***



### My-Ngoc Nguyen SANS Certified Instructor

My-Ngoc Nguyen (pronounced Mee-Nop Wynn) is the CEO/Principal Consultant for Secured IT Solutions. She has 15 years of experience in information systems and technology, with the past 12 years focused on cybersecurity and information assurance for both the government and commercial sectors. My-Ngoc is highly experienced in IT security and risk methodologies, and in legal and compliance programs. She led a cybersecurity program under a federal agency for a highly-regulated, first-of-a-kind project of national importance. With that experience, she has been helping client organizations in both the public and private sectors implement secure and compliant business processes and IT solutions using defense-in-depth and risk-based approaches. Along with a master's degree in management information systems, she carries top security certifications, including GPEN, GCIH, GSEC, and CISSP, and is a former QSA. She is an active member of the FBI's InfraGard, the Information Systems Security Association (ISSA), the Information Systems Audit and Control Association (ISACA), and the International Information Systems Security Certification Consortium (ISC). My-Ngoc co-founded the non-profit public service organization CyberSafeNV to raise security awareness among Nevada residents and is presently the organization's chairperson. @MenopN

Six-Day Program

Tue, May 30 - Sun, June 4

9:00am - 7:00pm (Days 1-5)

9:00am - 5:00pm (Day 6)

46 CPEs

Laptop Required

Instructor: Chris Christianson


[www.giac.org/gsec](http://www.giac.org/gsec)

[www.sans.edu](http://www.sans.edu)

[www.sans.org/8140](http://www.sans.org/8140)

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"Everyone in cyber should attend this course because it covers many aspects of security and emerging trends."

-PAMELA LIVINGSTON-SPRUILL,  
DOE/NSA



This course will teach you the most effective steps to prevent attacks and detect adversaries with actionable techniques that you can directly apply when you get back to work. You'll learn tips and tricks from the experts so that you can win the battle against the wide range of cyber adversaries that want to harm your environment.

Learn to build a security roadmap that can scale today and into the future!

### SEC401: Security Essentials Bootcamp

Style is focused on teaching you the essential information security skills and techniques you need to protect and secure your organization's critical information assets and business systems. This course will show you how to prevent your organization's security problems from being headline news in the *Wall Street Journal*!

With the rise of advanced persistent threats, it is almost inevitable that organizations will be targeted. Whether the attacker is successful in penetrating an organization's network depends on the effectiveness of the organization's defense. Defending against attacks is an ongoing challenge, with new threats emerging all of the time, including the next generation of threats. Organizations need to understand what really works in cybersecurity. What has worked, and will always work, is taking a risk-based approach to cyber defense. Before your organization spends a dollar of its IT budget or allocates any resources or time to anything in the name of cybersecurity, three questions must be answered:

- What is the risk?      ► Is it the highest priority risk?
- What is the most cost-effective way to reduce the risk?

Security is all about making sure you focus on the right areas of defense. In SEC401 you will learn the language and underlying theory of computer and information security. You will gain the essential and effective security knowledge you'll need if you are given the responsibility for securing systems and/or organizations. This course meets both of the key promises SANS makes to our students: (1) You will learn up-to-the-minute skills you can put into practice immediately upon returning to work; and (2) You will be taught by the best security instructors in the industry.

**PREVENTION IS IDEAL BUT DETECTION IS A MUST.**

### Chris Christianson SANS Instructor

Chris Christianson is an Information Security Consultant based in Northern California with 20 years of experience and many technical certifications, including the CCSE, CCDP, CCNP, GSEC, CISSP, IAM, GCIH, CEH, IEM, GCIA, GREM, GPEN, GWAPT, GISF, and GCED. He holds a bachelor of science degree in management information systems and was the Assistant Vice President of the Information Technology Department at one of the nation's largest credit unions. Chris has also been an expert speaker at conferences and a contributor to numerous industry articles. @cchristianson

### Who Should Attend

- Security professionals who want to fill the gaps in their understanding of technical information security
- Managers who want to understand information security beyond simple terminology and concepts
- Operations personnel who do not have security as their primary job function but need an understanding of security to be effective
- IT engineers and supervisors who need to know how to build a defensible network against attacks
- Administrators responsible for building and maintaining systems that are being targeted by attackers
- Forensic analysts, penetration testers, and auditors who need a solid foundation of security principles so they can be as effective as possible at their jobs
- Anyone new to information security with some background in information systems and networking

## SEC504:

# Hacker Tools, Techniques, Exploits, and Incident Handling

Six-Day Program

Tue, May 30 - Sun, June 4

9:00am - 7:15pm (Day 1)

9:00am - 5:00pm (Days 2-6)

37 CPEs

Laptop Required

Instructor: Michael Murr

# SANS



[www.giac.org/gcih](http://www.giac.org/gcih)



[www.sans.edu](http://www.sans.edu)



[www.sans.org/cyber-guardian](http://www.sans.org/cyber-guardian)



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### Michael Murr SANS Principal Instructor

Michael has been a forensic analyst with Code-X Technologies for over five years. He has conducted numerous investigations and computer forensic examinations, and performed specialized research and development. Michael has taught SEC504: Hacker Tools, Techniques, Exploits and Incident Handling; FOR508: Advanced Digital Forensics, Incident Response, and Threat Hunting; and FOR610: Reverse-Engineering Malware. He has also led SANS Online Training courses, and is a member of the GIAC Advisory Board. Currently, Michael is working on an open-source framework for developing digital forensics applications. He holds the GCIH, GCFA, and GREM certifications and has a degree in computer science from California State University at Channel Islands. Michael also blogs about digital forensics on his forensic computing blog ([www.forensicblog.org](http://www.forensicblog.org)). @mikemurr

### Who Should Attend

- Incident handlers
- Leaders of incident handling teams
- System administrators who are on the front lines defending their systems and responding to attacks
- Other security personnel who are first responders when systems come under attack

The Internet is full of powerful hacking tools and bad guys using them extensively. If your organization has an Internet connection or one or two disgruntled employees (and whose does not!), your computer systems will get attacked. From the five, ten, or even one hundred daily probes against your Internet infrastructure to the malicious insider slowly creeping through your most vital information assets, attackers are targeting your systems with increasing viciousness and stealth. **As defenders, it is essential we understand these hacking tools and techniques.**

**"SEC504 material and breadth is massive  
but it is so well constructed that anyone would learn something."**

**-DAN TRUEMAN, NOVAE GROUP**

This course enables you to turn the tables on computer attackers by helping you to understand their tactics and strategies in detail, giving you hands-on experience in finding vulnerabilities and discovering intrusions, and equipping you with a comprehensive incident handling plan. It addresses the latest cutting-edge insidious attack vectors, the "oldie-but-goodie" attacks that are still prevalent, and everything in between. Instead of merely teaching a few hack attack tricks, this course provides a time-tested, step-by-step process for responding to computer incidents, and a detailed description of how attackers undermine systems so you can prepare for, detect, and respond to attacks. In addition, the course explores the legal issues associated with responding to computer attacks, including employee monitoring, working with law enforcement, and handling evidence. Finally, students will participate in a **hands-on** workshop that focuses on scanning, exploiting, and defending systems. This will enable you to discover the holes in your system before the bad guys do!

The course is particularly well-suited to individuals who lead or are a part of an incident handling team. **General security practitioners, system administrators, and security architects will benefit by understanding how to design, build, and operate their systems to prevent, detect, and respond to attacks.**

**"This course introduces you to the various tools that are available to analysts and investigators that are used to perform tasks better and it really gives you a feel of how attacks occur. This has been a great hands-on experience!"**

**-SHERYLL ANNE TIAUZON, THE COCA-COLA COMPANY**



# Continuous Monitoring and Security Operations

Six-Day Program

Tue, May 30 - Sun, June 4

9:00am - 7:00pm (Days 1-5)

9:00am - 5:00pm (Day 6)

Laptop Required

46 CPEs

Laptop Required

Instructor: Bryan Simon



[www.giac.org/gmon](http://www.giac.org/gmon)



[www.sans.edu](http://www.sans.edu)



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"This training provides excellent information for self assessment of current SEC practices. I picked up a lot of tricks and new perspectives."

-KYLE MONTGOMERY,  
NATIONAL RURAL ELECTRIC  
COOPERATIVE ASSOCIATION



## Bryan Simon SANS Certified Instructor

Bryan Simon is an internationally recognized expert in cybersecurity and has been working in the information technology and security field since 1991. Over the course of his career, Bryan has held various technical and managerial positions in the education, environmental, accounting, and financial services sectors. Bryan speaks on a regular basis at international conferences and with the press on matters of cybersecurity. He has instructed individuals from organizations such as the FBI, NATO, and the UN in matters of cybersecurity, on two continents. Bryan has specialized expertise in defensive and offensive capabilities. He has received recognition for his work in IT security, and was most recently profiled by McAfee (part of Intel Security) as an IT Hero. Bryan holds 12 GIAC certifications including GSEC, GCWN, GCIH, GCFA, GPEN, GWAPT, GAWN, GISP, GCIA, GCED, GCUX, and GISF. Bryan's scholastic achievements have resulted in the honor of sitting as a current member of the Advisory Board for the SANS Institute, and his acceptance into the prestigious SANS Cyber Guardian program. Bryan is a SANS instructor for SEC401, SEC501, SEC505, and SEC511. @BryanOnSecurity

New Extended  
Bootcamp Hours to  
Enhance Your Skills

# SANS

We continue to underestimate the tenacity of our adversaries! Organizations are investing a significant amount of time and financial and human resources trying to prevent and combat cyber attacks, but despite this tremendous effort organizations are still getting compromised. The traditional perimeter-focused, prevention-dominant approach to security architecture has failed to prevent intrusions. No network is impenetrable, a reality that business executives and security professionals alike have to accept. Prevention is crucial, and we can't lose sight of it as the primary goal. However, a new proactive approach to security is needed to enhance the capabilities of organizations to detect threats that will inevitably slip through their defenses.

The underlying challenge for organizations victimized by an attack is timely incident detection. Industry data suggest that most security breaches typically go undiscovered for an average of seven months. Attackers simply have to find one way into most organizations, because they know that the lack of visibility and internal security controls will then allow them to methodically carry out their mission and achieve their goals.

"I'm looking forward to helping small businesses get 'cyber healthy' by applying the risk-relevant portions of this knowledge. **AWESOME!**" -ADAM AUSTIN, H-BAR CYBER SOLUTIONS

The Defensible Security Architecture, Network Security Monitoring (NSM)/Continuous Diagnostics and Mitigation (CDM)/Continuous Security Monitoring (CSM) taught in this course will best position your organization or Security Operations Center (SOC) to analyze threats and detect anomalies that could indicate cybercriminal behavior. The payoff for this new proactive approach is early detection of an intrusion, or successfully thwarting the efforts of attackers altogether. The National Institute of Standards and Technology (NIST) developed guidelines described in NIST SP 800-137 for Continuous Monitoring (CM), and this course will greatly increase your understanding and enhance your skills in implementing CM utilizing the NIST framework.

## Who Should Attend

- ▶ Security architects
- ▶ Senior security engineers
- ▶ Technical security managers
- ▶ Security Operations Center analysts, engineers, and managers
- ▶ Individuals working to implement Continuous Diagnostics and Mitigation (CDM), Continuous Security Monitoring (CSM), or Network Security Monitoring (NSM)
- ▶ Computer Network Defense analysts

# Cyber Threat Intelligence

Five-Day Program  
Tue, May 30 - Sat, June 3  
9:00am - 5:00pm  
30 CPEs  
Laptop Required  
Instructor: Peter  
Szczepankiewicz



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[www.sans.org/ondemand](http://www.sans.org/ondemand)

“Outstanding course material and instructor presentation! It truly drills into the analytic process, while remaining technical.

I highly recommend this course to anyone performing any level of intelligence support to defensive cyber operations.”

-THOMAS L., U.S. AIR FORCE

“I absolutely loved this class! The instructor provided a great framework for CTI that I will use to be more effective.”

-NATE DeWITT, eBay, Inc.



## Peter Szczepankiewicz SANS Certified Instructor

Formerly working with the military, Peter responded to network attacks, and worked with both defensive and offensive red teams. Currently, Peter is a Senior Security Engineer with IBM. People lead technology, not the other way around, so Peter works daily to bring actionable intelligence out of disparate security devices for customers, making systems interoperable. “Putting together networks only to tear them apart is just plain fun,” explains Peter, “and it allows students to take the information learned from books and this hands-on experience back to their particular work place.” @\_s14

Make no mistake: current network defense, threat hunting, and incident response practices contain a strong element of intelligence and counterintelligence that cyber analysts must understand and leverage in order to defend their networks, proprietary data, and organizations.

**FOR578: Cyber Threat Intelligence** will help network defenders, threat hunting teams, and incident responders to:

- Understand and develop skills in tactical, operational, and strategic-level threat intelligence
- Generate threat intelligence to detect, respond to, and defeat advanced persistent threats (APTs)
- Validate information received from other organizations to minimize resource expenditures on bad intelligence
- Leverage open-source intelligence to complement a security team of any size
- Create Indicators of Compromise (IOCs) in formats such as YARA, OpenIOC, and STIX.

The collection, classification, and exploitation of knowledge about adversaries – collectively known as cyber threat intelligence – gives network defenders information superiority that is used to reduce the adversary’s likelihood of success with each subsequent intrusion attempt. Responders need accurate, timely, and detailed information to monitor new and evolving attacks, as well as methods to exploit this information to put in place an improved defensive posture.

Cyber threat intelligence thus represents a force multiplier for organizations looking to update their response and detection programs to deal with increasingly sophisticated advanced persistent threats. Malware is an adversary’s tool but the real threat is the human one, and cyber threat intelligence focuses on countering those flexible and persistent human threats with empowered and trained human defenders.

During a targeted attack, an organization needs a top-notch and cutting-edge threat hunting or incident response team armed with the threat intelligence necessary to understand how adversaries operate and to counter the threat. **FOR578: Cyber Threat Intelligence** will train you and your team in the tactical, operational, and strategic-level cyber threat intelligence skills and tradecraft required to make security teams better, threat hunting more accurate, incident response more effective, and organizations more aware of the evolving threat landscape.

**THERE IS NO TEACHER BUT THE ENEMY!**

## Who Should Attend

- Incident response team members
- Threat hunters
- Security Operations Center personnel and information security practitioners
- Experienced digital forensic analysts
- Federal agents and law enforcement officials
- SANS FOR408, FOR572, FOR508, or FOR610 graduates looking to take their skills to the next level

# SANS Training Program for CISSP® Certification

Six-Day Program

Tue, May 30 - Sun, June 4

9:00am - 7:00pm (Day 1)

8:00am - 7:00pm (Days 2-5)

8:00am - 5:00pm (Day 6)

46 CPEs

Laptop NOT Needed

Instructor: Seth Misenar


[www.giac.org/gisp](http://www.giac.org/gisp)

[www.sans.org/8140](http://www.sans.org/8140)

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[www.sans.org/ondemand](http://www.sans.org/ondemand)

"This course is a great way to refresh and review my knowledge before sitting for the CISSP exam.

Not only is the content presented in a clear and concise manner, it is prepared logically for ease of comprehension."

-GLENN CARR, LEIDOS

## SANS MGT414: SANS Training Program for CISSP® Certification

is an accelerated review course that is specifically designed to prepare students to successfully pass the CISSP® exam.

MGT414 focuses solely on the eight domains of knowledge as determined by (ISC)<sup>2</sup> that form a critical part of the CISSP® exam. Each domain of knowledge is dissected into its critical components, and those components are then discussed in terms of their relationship with one another and with other areas of information security.

### You Will Be Able To:

- Understand the eight domains of knowledge that are covered on the CISSP® exam
- Analyze questions on the exam and be able to select the correct answer
- Apply the knowledge and testing skills learned in class to pass the CISSP® exam
- Understand and explain all of the concepts covered in the eight domains of knowledge
- Apply the skills learned across the eight domains to solve security problems when you return to work

### Note:

The CISSP® exam itself is not hosted by SANS. You will need to make separate arrangements to take the CISSP® exam. Please note as well that the GISP exam offered by GIAC is NOT the same as the CISSP® exam offered by (ISC)<sup>2</sup>.

### Who Should Attend

- Security professionals who want to understand the concepts covered in the CISSP® exam as determined by (ISC)<sup>2</sup>
- Managers who want to understand the critical areas of information security
- System, security, and network administrators who want to understand the pragmatic applications of the CISSP® eight domains
- Security professionals and managers looking for practical ways to apply the eight domains of knowledge to their current activities

### Obtaining Your CISSP® Certification Consists of:

- Fulfilling minimum requirements for professional work experience
- Completing the Candidate Agreement
- Review of your résumé
- Passing the CISSP® 250 multiple-choice question exam with a scaled score of 700 points or greater
- Submitting a properly completed and executed Endorsement Form
- Periodic audit of CPEs to maintain the credential

Take advantage of the SANS CISSP® Get Certified Program currently being offered.

[www.sans.org/cissp](http://www.sans.org/cissp)


### Seth Misenar SANS Senior Instructor

Seth Misenar is the founder of Jackson, Mississippi-based Context Security, where he provides information security thought leadership, independent research, and security training. Seth's background includes network and web application penetration testing, vulnerability assessment, regulatory compliance, security architecture design, and general security consulting. He has previously served as both physical and network security consultant for Fortune 100 companies and the Health Insurance Portability and Accountability Act, and as information security officer for a state government agency. Prior to becoming a security geek, Seth received a bachelor's of science degree in philosophy from Millsaps College, where he was twice selected for a Ford Teaching Fellowship. Also, Seth is no stranger to certifications and thus far has achieved credentials that include CISSP, GPEN, GWAPT, GSEC, GCIA, GCIH, GCWN, GCFA, and MCSE. @sethmisenar



# SANS Security Leadership Essentials for Managers with Knowledge Compression™

Five-Day Program

Tue, May 30 - Sat, June 3

9:00am - 6:00pm (Days 1-4)

9:00am - 4:00pm (Day 5)

33 CPEs

Laptop Recommended

Instructor: G. Mark Hardy



[www.giac.org/gslc](http://www.giac.org/gslc)



[www.sans.edu](http://www.sans.edu)



[www.sans.org/8140](http://www.sans.org/8140)

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[www.sans.org/ondemand](http://www.sans.org/ondemand)

"This course is very comprehensive and provides excellent awareness of how web servers and interaction work. Worth your time!"

-STEVE MCGEE,

CURASPAN HEALTH GROUP



## G. Mark Hardy SANS Certified Instructor

G. Mark Hardy is founder and president of National Security Corporation. He has been providing cybersecurity expertise to government, military, and commercial clients for over 30 years, and is an internationally recognized expert who has spoken at over 250 events world-wide. He serves on the Advisory Board of CyberWATCH, an Information Assurance/Information Security Advanced Technology Education Center of the National Science Foundation. A retired U.S. Navy Captain, he was privileged to serve in command nine times, including responsibility for leadership training for 70,000 sailors. He also served as wartime Director, Joint Operations Center for U.S. Pacific Command, and Assistant Director of Technology and Information Management for Naval Logistics in the Pentagon, with responsibility for InfoSec, public key infrastructure, and Internet security. Captain Hardy was awarded the Defense Superior Service Medal, the Legion of Merit, five Meritorious Service Medals, and 24 other medals and decorations. A graduate of Northwestern University, he has bachelor's degrees in computer science and mathematics, and master's degrees in business administration and strategic studies, along with the GSLC, CISSP, CISM, and CISA certifications. @g\_mark

This completely updated course is designed to empower advancing managers who want to 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. Lecture sections are intense; the most common student comment is that it's like drinking from a fire hose. The diligent manager will learn vital, up-to-date knowledge and skills required to supervise the security component of any information technology project. In addition, the course has been engineered to incorporate the NIST Special Publication 800 series guidance so that it can be particularly useful to U.S. government managers and supporting contractors.

Essential security topics covered in this management track include network fundamentals and applications, power, cooling and safety, architectural approaches to defense in depth, cyber attacks, vulnerability assessment and management, security policies, contingency and continuity planning, awareness management, risk management analysis, incident handling, web application security, and offensive and defensive information warfare, culminating with our management practicum. The material uses Knowledge Compression™, special charts, and other proprietary SANS techniques to help convey the key points of critical slides and keep the information flow rate at a pace senior executives demand every teaching hour of the course. The course has been evaluated and approved by CompTIA's CAQC Program for Security+ 2008 to ensure that managers and their direct reports have a common baseline for security terminology and concepts. You will be able to put what you learn into practice the day you get back into the office.

## Knowledge Compression™

*Maximize your learning potential!*

Knowledge Compression™ is an optional add-on feature to a SANS class that aims to maximize the absorption and long-term retention of large amounts of data over a relatively short period of time. Through the use of specialized training materials, in-class reviews, examinations and test-taking instruction, Knowledge Compression™ ensures students have a solid understanding of the information presented to them. By attending classes that feature this advanced training product, you will experience some of the most intense and rewarding training programs SANS has to offer, in ways that you never thought possible!

## Who Should Attend

- All newly appointed information security officers
- Technically-skilled administrators who have recently been given leadership responsibilities
- Seasoned managers who want to understand what their technical people are telling them

# SANS@NIGHT EVENING TALKS

**Enrich your SANS training experience!**

**Evening talks by our instructors and selected subject-matter experts help you broaden your knowledge, hear from the voices that matter in computer security, and get the most for your training dollar.**

KEYNOTE:

## **Actionable Detects: Blue Team Cyber Defense Tactics**

**Seth Misenar**

Organizations relying on third parties to detect breaches can go almost a full year before finding out they have been compromised. Detect the breach yourself, and on average you will find it within about a month of the initial occurrence. Considering detection and defense against modern adversaries too costly to perform yourself can be a very expensive miscalculation considering the substantially increased price of response and recovery with breach duration.

Seth Misenar's ever-evolving Actionable Detects presentation provides you with the analysis, tactics, techniques, and procedures to once again take pride in your Blue Team Cyber capabilities. Not applying these lessons learned could prove costly in the face of adapting threat actors. Dig in and learn to hold your head high when talking about your defensive cyber operations capabilities.

## **The End of Banking as We Know It: How Crypto Currencies and e-Payments Are Breaking Up a Centuries-Old Monopoly**

**G. Mark Hardy**

Are we finally ready to go mainstream with alt-currency? Bitcoin got off to a slow start but has attracted millions of VC dollars in the last two years. We'll look at this brave new world of electronic money to understand what it is, how it works, what it can (and cannot) do, and probabilities of success or failure. We'll examine spin-off technologies such as blockchains, and look into the mechanics behind electronic payment systems such as Apple Pay, CurrentC, and Softcard. We'll even talk about why crooks love Bitcoin for ransomware extortion, and dig into the mechanics of how credit card fraud works, and whether that might be going away as well.

# Enhance Your Training Experience

Add an  
**OnDemand Bundle & GIAC Certification Attempt\***  
to your course within seven days  
of this event for just \$689 each.

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- |                      |   |
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# SANS TRAINING FORMATS

## LIVE CLASSROOM TRAINING



### Multi-Course Training Events

*Live Instruction from SANS' Top Faculty, Vendor Showcase, Bonus Evening Sessions, and Networking with Your Peers*  
[sans.org/security-training/by-location/all](https://sans.org/security-training/by-location/all)



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# FUTURE SANS TRAINING EVENTS



## Training Events

**Tysons Corner Spring** . . . . . McLean, VA . . . . . Mar 20-25  
**Pen Test Austin** . . . . . Austin, TX . . . . . Mar 27 - Apr 1



**SANS 2017** . . . . . Orlando, FL . . . . . Apr 7-14

**Baltimore Spring** . . . . . Baltimore, MD . . . . . Apr 24-29



**Security West** . . . . . San Diego, CA . . . May 9-18

**Northern Virginia – Reston** . . . Reston, VA . . . . . May 21-26  
**Atlanta** . . . . . Atlanta, GA . . . . . May 30 - Jun 4  
**Houston** . . . . . Houston, TX . . . . . Jun 5-10  
**San Francisco Summer** . . . . . San Francisco, CA . . . . . Jun 5-10  
**Rocky Mountain** . . . . . Denver, CO . . . . . Jun 12-17  
**Charlotte** . . . . . Charlotte, NC . . . . . Jun 12-17  
**Minneapolis** . . . . . Minneapolis, MN . . . . . Jun 19-24  
**Columbia, MD** . . . . . Columbia, MD . . . . . Jun 26 - Jul 1  
**Los Angeles - Long Beach** . . . . . Long Beach, CA . . . . . Jul 10-15



**SANSFIRE** . . . . . Washington, DC . . Jul 24-29

**San Antonio – August** . . . . . San Antonio, TX . . . . . Aug 6-11  
**Boston** . . . . . Boston, MA . . . . . Aug 7-12  
**New York City** . . . . . New York, NY . . . . . Aug 14-19  
**Salt Lake City** . . . . . Salt Lake City, UT . . . . . Aug 14-19  
**Chicago** . . . . . Chicago, IL . . . . . Aug 21-26



## Summit Events

**ICS Security** . . . . . Orlando, FL . . . . . Mar 19-27  
**Threat Hunting and IR** . . . . . New Orleans, LA . . . . . Apr 18-25  
**Automotive Cybersecurity** . . . . . Detroit, MI . . . . . May 1-8  
**Security Operations Center** . . . . . Washington, DC . . . . . Jun 5-12  
**Digital Forensics** . . . . . Austin, TX . . . . . Jun 22-29  
**ICS & Energy** . . . . . Houston, TX . . . . . Jul 10-14  
**Security Awareness** . . . . . Nashville, TN . . . . . Jul 31 - Aug 9



## Community SANS Events

Local, single-course events are also offered throughout the year via SANS Community. Visit [www.sans.org/community](http://www.sans.org/community) for up-to-date Community course information.



**SANS ATLANTA 2017**

## Hotel Information

**Training Campus**  
**Grand Hyatt Atlanta in Buckhead**

3300 Peachtree Road NE  
Atlanta, GA 30305  
888-421-1442

[sans.org/event/atlanta-2017/location](http://sans.org/event/atlanta-2017/location)

Recently named one of USA Today's 10 Best Atlanta hotels, Grand Hyatt Atlanta is the perfect combination of sophistication, state-of-the-art amenities, and southern charm. Conveniently located on Peachtree Street, this Buckhead, Atlanta hotel puts you in the heart of Atlanta's best shopping, dining, sports and live music.

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Government per diem rooms are available with proper ID. These rates include high-speed Internet in your room and are only available through May 8, 2017. To book a room, please call 888-421-1442 and mention you are with SANS.

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- 1 All SANS attendees receive complimentary high-speed Internet when booking in the SANS block.
- 2 No need to factor in daily cab fees and the time associated with travel to alternate hotels.
- 3 By staying at the Grand Hyatt Atlanta you gain the opportunity to further network with your industry peers and remain in the center of the activity surrounding the training event.
- 4 SANS schedules morning and evening events at the Grand Hyatt Atlanta that you won't want to miss!
- 5 Everything is in one convenient location!

**SANS ATLANTA 2017**

## Registration Information

*We recommend you register early to ensure you get your first choice of courses.*



Register online at [www.sans.org/atlanta](http://www.sans.org/atlanta)

Select your course and indicate whether you plan to test for GIAC certification. If the course is still open, the secure, online registration server will accept your registration. Sold-out courses will be removed from the online registration. Everyone with Internet access must complete the online registration form. We do not take registrations by phone.

### Pay Early and Save\*

Use code  
**EarlyBird17**  
when registering early

	DATE	DISCOUNT	DATE	DISCOUNT
Pay & enter code before	4-5-17	\$400.00	4-26-17	\$200.00

\*Some restrictions apply. Early-bird discounts do not apply to Hosted courses.

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[www.sans.org/vouchers](http://www.sans.org/vouchers)

### Cancellation

You may substitute another person in your place at any time, at no charge, by e-mail: [registration@sans.org](mailto:registration@sans.org) or fax: 301-951-0140. Cancellation requests without substitution must be submitted in writing, by mail, or fax, and postmarked by May 3, 2017 — processing fees may apply.

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**Analyst Webcasts** — A follow-on to the SANS Analyst Program, Analyst Webcasts provide key information from our whitepapers and surveys.



**WhatWorks Webcasts** — The SANS WhatWorks webcasts bring powerful customer experiences showing how end users resolved specific IT Security issues.



**Tool Talks** — Tool Talks are designed to give you a solid understanding of a problem, and to show how a vendor's commercial tool can be used to solve or mitigate that problem.

## NEWSLETTERS



**NewsBites** — Twice-weekly high-level executive summary of the most important news relevant to cybersecurity professionals



**OUCH!** — The world's leading monthly free security-awareness newsletter designed for the common computer user



**@RISK: The Consensus Security Alert** — A reliable weekly summary of (1) newly discovered attack vectors, (2) vulnerabilities with active new exploits, (3) how recent attacks worked, and (4) other valuable data

## OTHER FREE RESOURCES

■ InfoSec Reading Room

■ Top 25 Software Errors

■ 20 Critical Controls

■ Security Policies

■ Intrusion Detection FAQs

■ Tip of the Day

■ Security Posters

■ Thought Leaders

■ 20 Coolest Careers

■ Security Glossary

■ SCORE (Security Consensus Operational Readiness Evaluation)

**[www.sans.org/account](http://www.sans.org/account)**