

SANS

Rocky Mountain 2014

Denver, CO

| June 9-14

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Security Essentials Bootcamp Style

Intrusion Detection In-Depth

Hacker Techniques, Exploits, and Incident Handling

Web App Penetration Testing and Ethical Hacking

Network Penetration Testing and Ethical Hacking

**Implementing and Auditing the
Critical Security Controls – In-Depth**

Computer Forensic Investigations – Windows In-Depth

SANS® +S™ Training Program for the CISSP® Certification Exam

“I can always count on SANS courses and instructors to help lay a course for improving my personal skills and for improving the direction of my organization’s security strategy.”

-GEORGE FRAZIER, LOWER MERION SCHOOL DISTRICT



GIAC Approved Training

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**Save
\$400**

by registering early!

See page 13 for more details.

We would like to invite you to attend **SANS Rocky Mountain 2014** in Denver “The Mile High City” on **June 9-14**. Malware attacks are increasing at an alarming rate and now more than ever, system security knowledge and identifying weaknesses in your organization is a must!



We have eight courses in IT security, pen testing, critical security controls, incident handling, and computer forensics along with our new **Intrusion Detection In-Depth** course – all in this spectacular western city approximately 12 miles east of the foothills of the Rocky Mountains. This annual event is taking place at the **Embassy Suites Denver Downtown Convention Center** located in the heart of downtown Denver.

Technically-skilled leaders with hands-on experience are needed to set you apart from others in the field, so don't miss this opportunity. Our event brochure will provide all the information you need! Learn about our award-winning faculty scheduled for Rocky Mountain: **Dr. Eric Cole, Mike Poor, James Tarala, Eric Conrad, Mike Pilkington, Kevin Fiscus, Seth Misener, and Michael Murr** who will team together to ensure that you not only learn the material, but that you can also use it the day you return to the office.

Also look for detailed information about our courses and our bonus evening events. Don't miss this chance to take one of four courses that are in alignment with the **DoD Directive 8570** (SEC401, SEC503, SEC504, and MGT414). More and more students are telling us that the certifications we offer are vital to their jobs, and we'll tell you why on our **GIAC** page – seven of our courses offer **GIAC Certification**. Look for details about our **Vendor Showcase** (June 11) along with a great lineup of **SANS@Night** evening events. These extra sessions are free with your paid tuition and are a great enhancement to your classroom training.

Register and pay for any 5-6 day course by April 16, 2014 and save up to \$400 on tuition fees with discounts offered to early registrants. See for yourself – register today for SANS Rocky Mountain 2014! We look forward to seeing you in Denver!

Here's what SANS alumni have said about the value of SANS training:

“Eric’s abundant energy, experience, and expertise makes him an effective SANS presenter. Great course!”
-Aaron, CU Boulder

“This was by far the best class I’ve ever taken for windows!”
-Rob Trujillo, U.S. Courts

“SANS courses are taught by experienced industry professionals with up-to-date information about topics”
-Kevin Clark, Visa

“This knowledge is indispensable, utterly necessary, and relevant to every industry.”
-Paul Ryan, GDIT

Courses-at-a-Glance

	MON 6/9	TUE 6/10	WED 6/11	THU 6/12	FRI 6/13	SAT 6/14
SEC401 Security Essentials Bootcamp Style	Page 1					
SEC503 Intrusion Detection In-Depth <i>NEW!</i>	Page 2					
SEC504 Hacker Techniques, Exploits, and Incident Handling	Page 3					
SEC542 Web App Penetration Testing and Ethical Hacking	Page 4					
SEC560 Network Penetration Testing and Ethical Hacking	Page 5					
SEC566 Implementing and Auditing the Critical Security Controls – In-Depth	Page 6					
FOR408 Computer Forensic Investigations – Windows In-Depth	Page 7					
MGT414 SANS® +S™ Training Program for the CISSP® Cert Exam	Page 8					

Security Essentials Bootcamp Style

Six-Day Program

Mon, June 9 - Sat, June 14

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

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

Laptop Required

46 CPE/CMU Credits

Instructor: Dr. Eric Cole

- ▶ GIAC Cert: GSEC
- ▶ Masters Program
- ▶ Cyber Guardian
- ▶ DoDD 8570

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



Dr. Eric Cole SANS Faculty Fellow

Dr. Cole is an industry-recognized security expert with over 20 years of hands-on experience. Dr. Cole currently performs leading-edge security consulting and works in research and development to advance the state of the art in information systems security. Dr. Cole has experience in information technology with a focus on perimeter defense, secure network design, vulnerability discovery, penetration testing, and intrusion detection systems. He has a master's degree in computer science from NYIT and a doctorate from Pace University with a concentration in information security. Dr. Cole is the author of several books, including "Hackers Beware," "Hiding in Plain Site," "Network Security Bible," and "Insider Threat." He is the inventor of over 20 patents and is a researcher, writer, and speaker. He is also a member of the Commission on Cyber Security for the 44th President and several executive advisory boards. Dr. Cole is founder of Secure Anchor Consulting, where he provides state-of-the-art security services and expert witness work. He also served as CTO of McAfee and Chief Scientist for Lockheed Martin. Dr. Cole is actively involved with the SANS Technology Institute (STI) and SANS, working with students, teaching, and maintaining and developing courseware. He is a SANS faculty Fellow and course author.

It seems wherever you turn organizations are being broken into, and the fundamental question that everyone wants answered is: Why? Why is it that some organizations get broken into and others do not? Organizations are spending millions of dollars on security and are still compromised. The problem is they are doing good things but not the right things. Good things will lay a solid foundation, but the right things will stop your organization from being headline news in the *Wall Street Journal*. SEC401's focus is to teach individuals the essential skills, methods, tricks, tools and techniques needed to protect and secure an organization's critical information assets and business systems.

This course teaches you the right things that need to be done to keep an organization secure. The focus is not on theory but practical hands-on tools and methods that can be directly applied when a student goes back to work in order to prevent all levels of attacks, including the APT (advanced persistent threat). In addition to hands-on skills, we will teach you how to put all of the pieces together to build a security roadmap that can scale today and into the future. When you leave our training we promise that you will have the techniques that you can implement today and tomorrow to keep your organization at the cutting edge of cyber security. Most importantly, your organization will be secure because students will have the skill sets to use the tools to implement effective security.

Before your organization spends a dollar of its IT budget or allocates any resources or time to anything in the name of cyber security, three questions must be answered:

1. What is the risk?
2. Is it the highest priority risk?
3. Is it the most cost-effective way of reducing the risk?

Security is all about making sure you are focusing on the right areas of defense. By attending SEC401, you will learn the language and underlying theory of computer security. In addition, you will gain the essential, up-to-the-minute knowledge and skills required for effective security if you are given the responsibility for securing systems and/or organizations.

*“Once again the instructor made all of the difference –
Dr. Cole is great. He made the
subject matter relevant and interesting.”*

-RICH CAMPBELL, LOCKHEED MARTIN



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Intrusion Detection In-Depth**NEW**

Six-Day Program
 Mon, June 9 - Sat, June 14
 9:00am - 5:00pm
 36 CPE/CMU Credits
 Laptop Required
 Instructor: Mike Poor
 ▶ GIAC Cert: GCIA
 ▶ Masters Program
 ▶ Cyber Guardian
 ▶ DoDD 8570

**Who Should Attend**

- ▶ Intrusion detection analysts (all levels)
- ▶ Network engineers
- ▶ System, security, and network administrators
- ▶ Hands-on security managers

“Mike is extremely informative and conveys his knowledge effectively.”

-Benjamin Smith, USMC

“Mike Poor provides great instruction, very energetic, and interactive.”

-Kenneth Drennon,
 S.C. National Guard

“Mike respects what we are here for and doesn’t rush us out at the end of the day. He takes the time to explain any problem areas.”

-Aaron Didier,
 Motorola Solutions

If you have an inkling of awareness of security (even my elderly aunt knows about the perils of the Interweb!), you often hear the disconcerting news about another high-profile company getting compromised. The security landscape is continually changing from what was once only perimeter protection to a current exposure of always-connected and often-vulnerable. Along with this is a great demand for security savvy employees who can help to detect and prevent intrusions. That is our goal in the **Intrusion Detection In-Depth** course – to acquaint you with the core knowledge, tools, and techniques to prepare you to defend your networks.

This course spans a wide variety of topics from foundational material such as TCP/IP to detecting an intrusion, building in breadth and depth along the way. It’s kind of like the “soup to nuts” or bits to bytes to packets to flow of traffic analysis.

Hands-on exercises supplement the course book material, allowing you to transfer the knowledge in your head to your keyboard using the Packetrix VMware distribution created by industry practitioner and SANS instructor Mike Poor. As the Packetrix name implies, the distribution contains many of the tricks of the trade to perform packet and traffic analysis. All exercises have two different approaches. A more basic one that assists you by giving hints for answering the questions. Students who feel that they would like more guidance can use this approach. The second approach provides no hints, permitting a student who may already know the material or who has quickly mastered new material a more challenging experience. Additionally, there is an “extra credit” stumper question for each exercise intended to challenge the most advanced student.

By week’s end, your head should be overflowing with newly gained knowledge and skills; and your luggage should be swollen with course book material that didn’t quite get absorbed into your brain during this intense week of learning. This course will enable you to “hit the ground running” once returning to a live environment.



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**Mike Poor** SANS Senior Instructor

Mike is a founder and senior security analyst for the DC firm InGuardians, Inc. In the past he has worked for Sourcefire as a research engineer and for SANS leading its intrusion analysis team. As a consultant Mike conducts incident response, breach analysis, penetration tests, vulnerability assessments, security audits, and architecture reviews. His primary job focus, however, is in intrusion detection, response, and mitigation. Mike currently holds the GCIA certification and is an expert in network engineering and systems and network and web administration. Mike is an author of the international best-selling “Snort” series of books from Syngress, a member of the HoneyNet Project, and a handler for the SANS Internet Storm Center.

Hacker Techniques, Exploits, and Incident Handling

Six-Day Program

Mon, June 9 - Sat, June 14
 9:00am - 6:30pm (Day 1)
 9:00am - 5:00pm (Days 2-6)
 37 CPE/CMU Credits

Laptop Required

Instructor: Michael Murr

- ▶ GIAC Cert: GCIH
- ▶ Masters Program
- ▶ Cyber Guardian
- ▶ DoDD 8570

“As an incident manager, SEC504 gave me a more in-depth look into how incidents occur and the tools to combat such incidents.”

-Taylor Overhultz,
Bank of America

“SEC504 was a fantastic learning experience. So much information presented in a manner that was understandable.”

-Scotlyn Monk, Ingalls
Information Security



Michael Murr SANS Certified Instructor

Michael has been a forensic analyst with Code-X Technologies for over five years, has conducted numerous investigations and computer forensic examinations, and has performed specialized research and development. Michael has taught SEC504 (Hacker Techniques, Exploits, and Incident Handling), FOR508 (Computer Forensics, Investigation, and Response), and FOR610 (Reverse-Engineering Malware); has led SANS@Home courses; and is a member of the GIAC Advisory Board. Currently, Michael is working on an open-source framework for developing digital forensics applications. Michael 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.

If your organization has an Internet connection or one or two disgruntled employees (and whose doesn't!), 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.

By helping you understand attackers' 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, the in-depth information in this course helps you turn the tables on computer attackers. This course addresses the latest cutting-edge insidious attack vectors and the “oldie-but-goodie” attacks that are still so prevalent, and everything in between. Instead of merely teaching a few hack attack tricks, this course includes a time-tested, step-by-step process for responding to computer incidents; a detailed description of how attackers undermine systems so you can prepare, detect, and respond to them; and a hands-on workshop for discovering holes before the bad guys do. Additionally, the course explores the legal issues associated with responding to computer attacks, including employee monitoring, working with law enforcement, and handling evidence.

This challenging course is particularly well suited to individuals who lead or are a part of an incident handling team. Furthermore, 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.

Who Should Attend

- ▶ Incident handlers
- ▶ Penetration testers
- ▶ Ethical hackers
- ▶ 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



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Web App Penetration Testing and Ethical Hacking

Six-Day Program

Mon, June 9 - Sat, June 14

9:00am - 5:00pm

36 CPE/CMU Credits

Laptop Required

Instructor: Seth Misenar

▶ GIAC Cert: GWAPT

▶ Masters Program

▶ Cyber Guardian

“Seth is an amazing instructor. He clearly has a passion for security, evident by his crazy amount of knowledge. His real-world examples relate well to the course content and make it easier to understand.”

-Lee Slaughter, F5 Networks

“SEC542 taught me to focus on the methodology while performing a pen test. During the CTF, I realized how much time can be wasted if you fail to respect your methodology.”

-Sean Rosado, RavenEye



Seth Misenar *SANS Certified Instructor*

Seth Misenar is a certified SANS instructor and also serves as lead consultant and founder of Jackson, Mississippi-based Context Security, which provides information security through leadership, independent research, and security training. Seth's background includes network and Web application penetration testing, vulnerability assessment, regulatory compliance efforts, security architecture design, and general security consulting. He has previously served as both physical and network security consultant for Fortune 100 companies as well as the HIPAA and information security officer for a state government agency. Prior to becoming a security geek, Seth received a BS 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 which include, but are not limited to, the following: CISSP, GPEN, GWAPT, GSEC, GCIA, GCIH, GCWN, GCFR, and MCSE.

Assess Your Web Apps in Depth

Web applications are a major point of vulnerability in organizations today. Web app holes have resulted in the theft of millions of credit cards, major financial and reputational damage for hundreds of enterprises, and even the compromise of thousands of browsing machines that visited websites altered by attackers. In this intermediate to advanced level class, you'll learn the art of exploiting web applications so you can find flaws in your enterprise's web apps before the bad guys do. Through detailed, hands-on exercises and training from a seasoned professional, you will be taught the four-step process for Web application penetration testing. You will inject SQL into back-end databases, learning how attackers exfiltrate sensitive data. You will utilize cross-site scripting attacks to dominate a target infrastructure in our unique hands-on laboratory environment. And you will explore various other web app vulnerabilities in depth with tried-and-true techniques for finding them using a structured testing regimen. You will learn the tools and methods of the attacker, so that you can be a powerful defender.

Throughout the class, you will learn the context behind the attacks so that you intuitively understand the real-life applications of our exploitation. In the end, you will be able to assess your own organization's web applications to find some of the most common and damaging Web application vulnerabilities today.

By knowing your enemy, you can defeat your enemy. General security practitioners, as well as website designers, architects, and developers, will benefit from learning the practical art of web application penetration testing in this class.



Who Should Attend

- ▶ General security practitioners
- ▶ Penetration testers
- ▶ Ethical hackers
- ▶ Web application vulnerability
- ▶ Website designers and architects
- ▶ Developers



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Network Penetration Testing and Ethical Hacking

Six-Day Program

Mon, June 9 - Sat, June 14

9:00am - 6:30pm (Day 1)

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

37 CPE/CMU Credits

Laptop Required

Instructor: Kevin Fiscus

▶ GIAC Cert: GPEN

▶ Masters Program

▶ Cyber Guardian

“This course will help me determine how safe my work environment is. SEC560 is fun and relevant, and I haven’t felt burned out at the end of the day.”

-David Neilson,
Western Family Foods

“SEC560 is getting better and better, you understand more as the day goes on. Most of the tools, I will be able to use in my organization.”

-Rayen Rai, Godo



Kevin Fiscus SANS Certified Instructor

Kevin Fiscus is the founder of and lead consultant for Cyber Defense Advisors where he performs security and risk assessments, vulnerability and penetration testing, security program design, policy development and security awareness with a focus on serving the needs of small and mid-sized organizations. Kevin has over 20 years of IT experience and has focused exclusively on information security for the past 12. Kevin currently holds the CISA, GPEN, GREM, GCFA-Gold, GCIA-Gold, GCIH, GAWN, GCWN, GCSC-Gold, GSEC, SCSA, RCSE, and SnortCP certifications and is proud to have earned the top information security certification in the industry, the GIAC Security Expert. Kevin has also achieved the distinctive title of SANS Cyber Guardian for both red team and blue team. Kevin has taught many of SANS most popular classes including SEC401, SEC464, SEC504, SEC542, SEC560, SEC575, FOR508, and MGT414. In addition to his security work, he is a proud husband and father of two children.

As cyber attacks increase, so does the demand for information security professionals who possess true network penetration testing and ethical hacking skills. There are several ethical hacking courses that claim to teach these skills, but few actually do. **SANS SEC560: Network Penetration Testing and Ethical Hacking**

truly prepares you to conduct successful

penetration testing and ethical hacking projects. The course starts with proper planning, scoping and recon,

and then dives deep into scanning, target exploitation, password attacks, and wireless and web apps with detailed hands-on exercises and practical tips for doing the job safely and effectively. You will finish up with an intensive, hands-on Capture the Flag exercise in which you'll conduct a penetration test against a sample target organization, demonstrating the knowledge you mastered in this course.

Security vulnerabilities, such as weak configurations, unpatched systems, and botched architectures, continue to plague organizations. Enterprises need people who can find these flaws in a professional manner to help eradicate them from our infrastructures. Lots of people claim to have penetration testing, ethical hacking, and security assessment skills, but precious few can apply these skills in a methodical regimen of professional testing to help make an organization more secure. This class covers the ingredients for successful network penetration testing to help attendees improve their enterprise's security stance.

We address detailed pre-test planning, including setting up an effective penetration testing infrastructure and establishing ground rules with the target organization to avoid surprises and misunderstanding. Then, we discuss a time-tested methodology for penetration and ethical hacking across the network, evaluating the security of network services and the operating systems behind them.

Attendees will learn how to perform detailed reconnaissance, learning about a target's infrastructure by mining blogs, search engines, and social networking sites. We'll then turn our attention to scanning, experimenting with numerous tools in hands-on exercises. The class also discusses how to prepare a final report, tailored to maximize the value of the test from both a management and technical perspective.

Who Should Attend

- ▶ Security personnel whose job involves assessing target networks and systems to find and re-mediate vulnerabilities
- ▶ Penetration testers
- ▶ Ethical hackers
- ▶ Auditors who need to build deeper technical skills



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Implementing and Auditing the Critical Security Controls - In-Depth

Five-Day Program

Mon, June 9 - Fri, June 13

9:00am - 5:00pm

Laptop Required

30 CPE/CMU Credits

Instructor: James Tarala

“James is one of the best instructors I’ve ever had. His passion for the subject is apparent from day one all the way to day five.”

-Michelle Cabral,

Dept. of Defense

“I learned how the critical security controls fit into other frameworks. It also provided me focus and prioritization on controls to emphasize when I return to work.”

-Jim Mitchell,

Mission Support Alliance, LLC.



James Tarala SANS Senior Instructor

James Tarala is a principal consultant with Enclave Security and is based out of Venice, Florida. He is a regular speaker and senior instructor with the SANS Institute as well as a courseware author and editor for many SANS auditing and security courses. As a consultant, he has spent the past few years architecting large enterprise IT security and infrastructure architectures, specifically working with many Microsoft-based directory services, e-mail, terminal services, and wireless technologies. He has also spent a large amount of time consulting with organizations to assist them in their security management, operational practices, and regulatory compliance issues, and he often performs independent security audits and assists internal audit groups in developing their internal audit programs. James completed his undergraduate studies at Philadelphia Biblical University and his graduate work at the University of Maryland. He holds numerous professional certifications.

Cybersecurity attacks are increasing and evolving so rapidly that it is more difficult than ever to prevent and defend against them. Does your organization have an effective method in place to detect, thwart, and monitor external and internal threats to prevent security breaches?

As threats evolve, an organization's security should too. To enable your organization to stay on top of this ever-changing threat scenario, SANS has designed a comprehensive course on how to implement the Critical Security Controls, a prioritized, risk-based approach to security. Designed by private and public sector experts from around the world, the Controls are the best way to block known attacks and mitigate damage from successful attacks. They have been adopted by the U.S. Department of Homeland Security, state governments, universities, and numerous private firms.

The Controls are specific guidelines that CISOs, CIOs, IGs, systems administrators, and information security personnel can use to manage and measure the effectiveness of their defenses. They are designed to complement existing standards, frameworks, and compliance schemes by prioritizing the most critical threat and highest payoff defenses, while providing a common baseline for action against risks that we all face.

The Controls are an effective security framework because they are based on actual attacks launched regularly against networks. Priority is given to Controls that (1) mitigate known attacks (2) address a wide variety of attacks, and (3) identify and stop attackers early in the compromise cycle.

The British governments Center for the Protection of National Infrastructure describes the Controls as the baseline of high-priority information security measures and controls that can be applied across an organisation in order to improve its cyber defence.

SANS in-depth, hands-on training will teach you how to master the specific techniques and tools needed to implement and audit the Critical Controls. It will help security practitioners understand not only how to stop a threat, but why the threat exists, and how to ensure that security measures deployed today will be effective against the next generation of threats.

The course shows security professionals how to implement the controls in an existing network through cost-effective automation. For auditors, CIOs, and risk officers, the course is the best way to understand how you will measure whether the Controls are effectively implemented.

Who Should Attend

- ▶ Information assurance auditors
- ▶ System implementers or administrators
- ▶ Network security engineers
- ▶ IT administrators
- ▶ Department of Defense (DoD) personnel or contractors
- ▶ Federal agencies or clients
- ▶ Private sector organizations looking to improve information assurance processes and secure their systems
- ▶ Security vendors and consulting groups looking to stay current with frameworks for information assurance
- ▶ Alumni of SEC440, SEC401, SEC501, MGT512, and other SANS Audit courses

Computer Forensic Investigations – Windows In-Depth

Six-Day Program
 Mon, June 9 - Sat, June 14
 9:00am - 5:00pm
 36 CPE/CMU Credits
 Laptop Required
 Instructor: Mike Pilkington
 ▶ GIAC Cert: GCFE
 ▶ Masters Program



Digital Forensics and
 Incident Response
<http://computer-forensics.sans.org>

“I really appreciate the prebuilt and configured SIFT workstation. FOR408 course materials and instructions were outstanding.”

-Clint Modesitt,
 HSSK Forensics, Inc.

“Great forensics info from a technical perspective in terms of theory, tools, and processes. A great way to get started! FOR408 also has good info for the seasoned forensics analyst; you won’t be disappointed!”

-Jonathan Stidham, Raytheon

Master computer forensics. Learn critical investigation techniques. With today’s ever-changing technologies and environments, it is inevitable that every organization will deal with cybercrime including fraud, insider threats, industrial espionage, and phishing. In addition, government agencies are now performing media exploitation to recover key intelligence kept on adversary systems. In order to help solve these cases, organizations are hiring digital forensic professionals and an calling cybercrime law enforcement agents to piece together what happened in these cases.

FOR408: Computer Forensic Investigations – Windows In-Depth focuses on the critical knowledge of the Windows OS that every digital forensic analyst must know to investigate computer incidents successfully. You will learn how computer forensic analysts focus on collecting and analyzing data from computer systems to track user-based activity that could be used internally or in civil/criminal litigation.

This course covers the fundamental steps of the in-depth computer forensic and media exploitation methodology so that each student will have the complete qualifications to work as a computer forensic investigator in the field helping solve and fight crime. In addition to in-depth technical digital forensic knowledge on Windows Digital Forensics (Windows XP through Windows 8 and Server 2008) you will be exposed to well known computer forensic tools such as Access Data’s Forensic Toolkit (FTK), Guidance Software’s EnCase, Registry Analyzer, FTK Imager, Prefetch Analyzer, and much more. Many of the tools covered in the course are freeware, comprising a full-featured forensic laboratory that students can take with them.

**FIGHT CRIME.
 UNRAVEL INCIDENTS...
 ONE BYTE AT A TIME.**

Who Should Attend

- ▶ Information technology professionals
- ▶ Incident response team members
- ▶ Law enforcement officers, federal agents, or detectives
- ▶ Media exploitation analysts
- ▶ Information security managers
- ▶ Information technology lawyers and paralegals
- ▶ Anyone interested in computer forensic investigations



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Mike Pilkington SANS Instructor

Mike Pilkington is a senior security consultant for a Fortune 500 company in the oil & gas industry. He has been an IT professional since graduating in 1996 from the University of Texas with a B.S. in Mechanical Engineering. Since joining his company in 1997, he has been involved in software quality assurance, systems administration, network administration, and information security. Outside of his normal work schedule, Mike has also been involved with the SANS Institute as a mentor and instructor in the digital forensics program.

SANS® +S™ Training Program for the CISSP® Certification Exam

Six-Day Program

Mon, June 9 - Sat, June 14
 9:00am - 7:00pm (Day 1)
 8:00am - 7:00pm (Days 2-5)
 8:00am - 5:00pm (Day 6)
 46 CPE/CMU Credits
 Laptop NOT Needed
 Instructor: Eric Conrad
 ▶ GIAC Cert: GISP
 ▶ DoDD 8570

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

www.sans.org/special/cissp-get-certified-program

“MGT414 is a great class. Well worth the investment of time and money.”

-Ashley Taylor,
 Nationwide Insurance

“Eric did a great job in capturing my attention. He used real-life situations to convey the messages. I would highly recommend this course to my colleagues and I will be keeping an eye out for any speaking engagement conducted by Eric.”

-Daphne Le-Dang,
 Pacific Life Insurance



Who Should Attend

- ▶ Security professionals who are interested in understanding the concepts covered in the CISSP® exam as determined by (ISC)?
- ▶ Managers who want to understand the critical areas of network security
- ▶ System, security, and network administrators who want to understand the pragmatic applications of the CISSP® 10 Domains
- ▶ Security professionals and managers looking for practical ways the 10 domains of knowledge can be applied to the current job
- ▶ In short, if you desire a CISSP® or your job requires it, MGT414 is the training for you to get GISP certified

The SANS® +S™ Training Program for the CISSP® Certification Exam will cover the security concepts needed to pass the CISSP® exam. This is an accelerated review course that assumes the student has a basic understanding of networks and operating systems and focuses solely on the 10 domains of knowledge of the CISSP®:

- Domain 1: Access Controls
- Domain 2: Telecommunications and Network Security
- Domain 3: Information Security Governance & Risk Management
- Domain 4: Software Development Security
- Domain 5: Cryptography
- Domain 6: Security Architecture and Design
- Domain 7: Security Operations
- Domain 8: Business Continuity and Disaster Recovery Planning
- Domain 9: Legal, Regulations, Investigations and Compliance
- Domain 10: Physical (Environmental) Security



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Each domain of knowledge is dissected into its critical components. Every component is discussed in terms of its relationship to other components and other areas of network security. After completion of the course, the student will have a good working knowledge of the 10 domains of knowledge and, with proper preparation, be ready to take and pass the CISSP® exam.

Obtaining your CISSP® certification consists of:

- ▶ Fulfilling minimum requirements for professional work experience
- ▶ Completing the Candidate Agreement
- ▶ Review of 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

Note: CISSP® exams are not hosted by SANS. You will need to make separate arrangements to take the CISSP® exam.



Eric Conrad SANS Certified Instructor

Eric Conrad is lead author of the book “The CISSP Study Guide.” Eric’s career began in 1991 as a UNIX systems administrator for a small oceanographic communications company. He gained information security experience in a variety of industries, including research, education, power, Internet, and health care. He is now president of Backshore Communications, a company focusing on intrusion detection, incident handling, information warfare, and penetration testing. He is a graduate of the SANS Technology Institute with a master of science degree in information security engineering. In addition to the CISSP, he holds the prestigious GIAC Security Expert (GSE) certification as well as the GIAC GPEN, GCIH, GCIA, GCFA, GAWN, and GSEC certifications. Eric also blogs about information security at www.ericconrad.com.

ROCKY MOUNTAIN BONUS SESSIONS

SANS@Night Evening Talks

Enrich your SANS training experience! Evening talks given 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: APT: It is Time to Act *Dr. Eric Cole*

Albert Einstein said “We cannot solve our problems with the same thinking we used when we created them.” With the new advanced and emerging threat vectors that are breaking into networks with relative ease, a new approach to security is required. The myth that these attacks are so stealthy they cannot be stopped is just not true. There is no such thing as an unstoppable adversary. It is time to act. In this engaging talk one of the experts on APT, Dr. Cole, will outline an action plan for building a defensible network that focuses on the key motto that “Prevention is Ideal but Detection is a Must”. Better understand what the APT really is and what organizations can do to be better prepared. The threat is not going away, so the more organizations can realign their thinking with solutions that actually work, the safer the world will become.

Continuous Ownage: Why you Need Continuous Monitoring *Seth Misenar*

Repeat after me, “I will be breached.” Most organizations realize this fact too late, usually after a third party informs them months after the initial compromise. Treating security monitoring as a quarterly auditing process means most compromises will go undetected for weeks or months. The attacks are continuous, and the monitoring must match. This talk will help you face this problem and describe how to move your organization to a more defensible security architecture that enables continuous security monitoring. The talk will also give you a hint at the value you and your organization will gain from attending Seth Misenar and Eric Conrad’s new course: Continuous Monitoring and Security Operations.

An Introduction to PowerShell for Security Assessments *James Tarala*

With the increased need for automation in operating systems, every platform now provides a native environment for automating repetitive tasks via scripts. Since 2007, Microsoft has gone all in with their PowerShell scripting environment, providing access to every facet of the Microsoft Windows operating system and services via a scriptable interface. Administrators can completely administer and audit not only an operating system from this shell, but most all Microsoft services, such as Exchange, SQL Server, and SharePoint services as well. In this presentation James Tarala of Enclave Security will introduce students to using PowerShell scripts for assessing the security of these Microsoft services. Auditors, system administrators, penetration testers, and others will all learn practical techniques for using PowerShell to assess and secure these vital Windows services.

DLP FAIL!!! Using Encoding, Steganography and Covert Channels to Evade DLP and Other Critical Controls *Kevin Fiscus*

It’s all about the information! Two decades after the movie Sneakers, the quote remains as relevant, if not more so. The fact that someone hacks into an environment is interesting but not that relevant. What is important is what happens after the compromise. If the data is destroyed or modified, organizations are negatively impacted but the benefits to an attacker for destruction or alteration are somewhat limited. Stealing information however, is highly profitable. Identity theft, espionage, and financial attacks involve the exfiltration of sensitive data. As a result, organizations deploy tools to detect and/or stop that data exfiltration. While these tools can be extremely valuable, many have serious weaknesses; attackers can encode, hide, or obfuscate the data, or can use secret communication channels. This session will talk about and demonstrate a range of these methods.

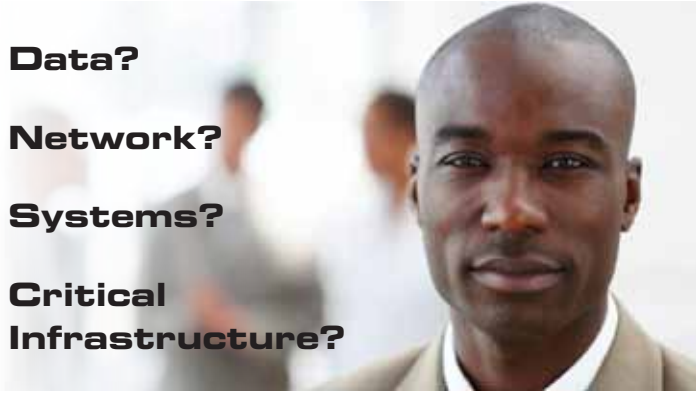
Vendor Showcase

Wednesday, June 11 | 10:30am-10:50am | 12:30pm-1:15pm | 3:00pm-3:20pm

Our events incorporate external vendor partners showcasing some of the best security solutions available. Take advantage of the opportunity to interact with the people behind the products and learn what they have to offer you and your organization.

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- ▶ **Network?**
- ▶ **Systems?**
- ▶ **Critical Infrastructure?**



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-CHRISTINA FORD, DEPARTMENT OF COMMERCE

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Department of Defense Directive 8570 (DoDD 8570)

www.sans.org/8570



Department of Defense Directive 8570 (DoDD 8570) provides guidance and procedures for the training, certification, and management of all government employees who conduct information assurance functions in assigned duty positions. These individuals are required to carry an approved certification for their particular job classification. GIAC provides the most options in the industry for meeting 8570 requirements.

SANS Training Courses for DoDD Approved Certifications

SANS TRAINING COURSE	DoDD APPROVED CERT
SEC401 Security Essentials Bootcamp Style	GSEC
SEC501 Advanced Security Essentials – Enterprise Defender	GCED
SEC503 Intrusion Detection In-Depth	GCIA
SEC504 Hacker Techniques, Exploits, and Incident Handling	GCIH
AUD507 Auditing Networks, Perimeters, and Systems	GSNA
FOR508 Advanced Computer Forensic Analysis and Incident Response	GCFA
MGT414 SANS® +S™ Training Program for the CISSP® Certification Exam	CISSP
MGT512 SANS Security Essentials for Managers with Knowledge Compression™	GSLC

Compliance/Recertification:

To stay compliant with DoDD 8570 requirements, you must maintain your certifications. GIAC certifications are renewable every four years. Go to www.giac.org to learn more about certification renewal.

DoDD 8570 certification requirements are subject to change, please visit <http://iase.disa.mil/eta/iawip> for the most updated version.

For more information, contact us at 8570@sans.org or visit www.sans.org/8570

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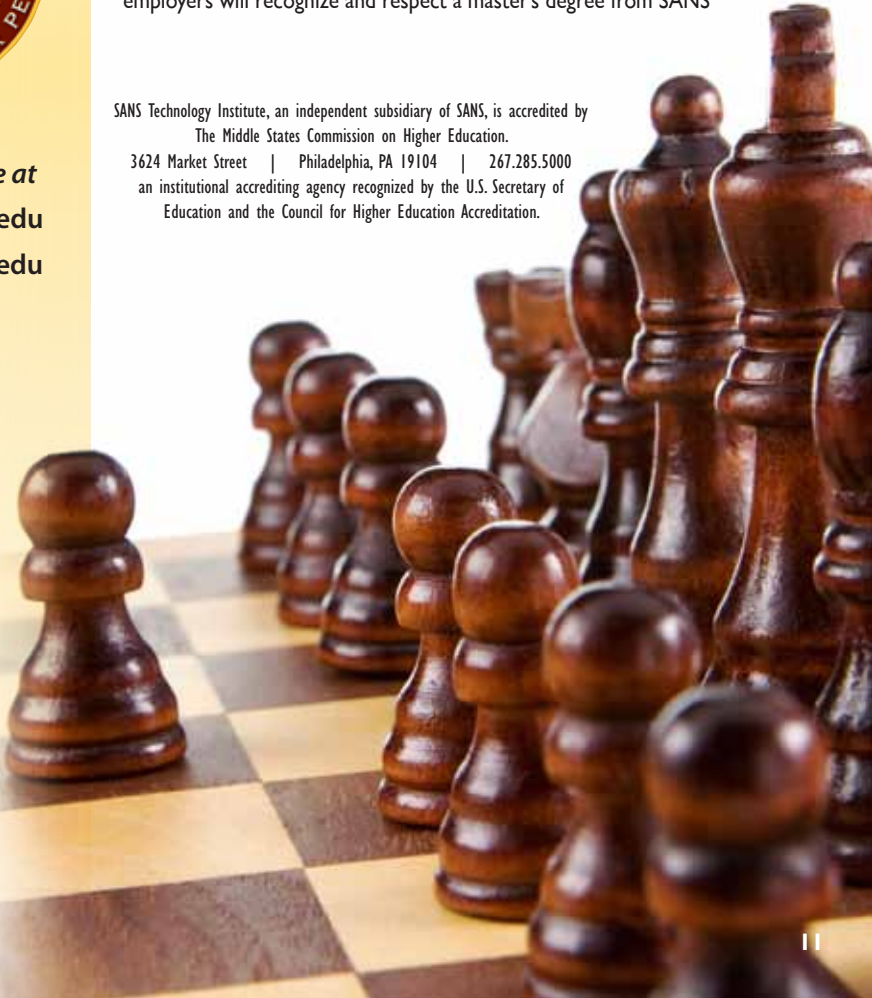
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FUTURE SANS TRAINING EVENTS

Information on all events can be found at www.sans.org/security-training/by-location/all



SANS 2014

Orlando, FL | April 5-14



SANS Austin 2014

Austin, TX | April 28 - May 3



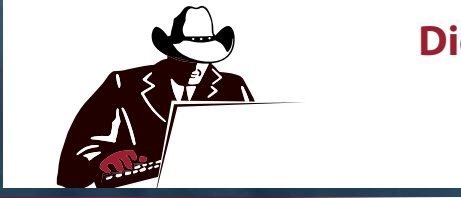
Security Leadership SUMMIT 2014

Boston, MA | April 29 - May 7



SANS Security West 2014

San Diego, CA | May 8-17



Digital Forensics & Incident Response SUMMIT

Austin, TX | June 3-10



SANSFIRE 2014

Baltimore, MD | June 21-30



SANS Capital City 2014

Washington, DC | July 7-12



SANS San Francisco 2014

San Francisco, CA | July 14-19



ICS Security TRAINING 2014 - HOUSTON

Houston, TX | July 21-25



SANS ROCKY MOUNTAIN 2014

Hotel Information

Training Campus
**Embassy Suites Denver Downtown
 Convention Center**

1420 Stout Street | Denver, CO 80202
www.sans.org/event/rocky-mountain-2014/location

Special Hotel Rates Available

A special discounted rate of \$199.00 S/D will be honored based on space availability. Government per diem rooms are available with proper ID; you will need to call reservations and ask for the SANS government rate. These rates include high-speed Internet in your room and are only available through May 15, 2014. To make reservations please call (800) HILTONS and ask for the SANS group rate.

The Embassy Suites Denver Downtown Convention Center hotel offers the perfect setting for business or pleasure. Stay at this gateway to Denver's lively downtown scene. Boasting a contemporary convention venue, our LEED™-certified hotel is within walking distance of the best attractions in the downtown area. The Embassy Suites offers complimentary cooked-to-order breakfast and evening reception, including a variety of beverages and snacks.

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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 Embassy Suites Denver Downtown, 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 Embassy Suites Denver Downtown that you won't want to miss!
- 5 Everything is in one convenient location!

SANS ROCKY MOUNTAIN 2014

Registration Information

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

Register online at www.sans.org/event/rocky-mountain-2014/courses

Select your course or courses 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.

Register Early and Save

	DATE	DISCOUNT	DATE	DISCOUNT
Register & pay by	4/16/14	\$400.00	5/7/14	\$250.00

Some restrictions apply.

Group Savings (Applies to tuition only)*

10% discount if 10 or more people from the same organization register at the same time
 5% discount if 5-9 people from the same organization register at the same time

To obtain a group discount, complete the discount code request form at www.sans.org/security-training/discounts prior to registering.

*Early-bird rates and/or other discounts cannot be combined with the group discount.

Cancellation

You may substitute another person in your place at any time, at no charge, by e-mail: 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 14, 2014 – processing fees may apply.

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