University Based Online Training

Computer forensics, also known as computer forensic science, has more recently also come to be known as digital forensics and cyber forensics. Regardless of the name, computer forensics involves data recovery employing a legal audit trail in support of criminal and civil investigation and/or litigation. Computer forensics has also been used for non-court purposes, such as personnel actions in addition to expert confirmation of data destruction in compliance with federal privacy legislation; with regard to the latter, who is better trained than a computer forensics examiner to ensure that data cannot be recovered.

CompuForensics, in association with the Universities of Texas at Arlington, offers the government and private sectors a highly cost effective approach to upgrading the technical skills of their investigative, intelligence and support personnel. As a pioneer in federal law enforcement computer forensics and Internet crime investigations with over a quarter century of federal law enforcement experience, culminating in the development and management of a national agency computer forensics program, the lead forensics instructor brings an insightful approach second to none.

'Live' - Not Just A Correspondence Course

Unlike traditional correspondence courses, our online training is live. That is, an instructor is available during each block of instruction via Skype teleconferencing and screen sharing software. Lectures and laboratories are augmented by Flash and HTML 5 multimedia presentations hosted by two password protected high speed web sites. The below left graphic depicts a student audio/video computer desktop.

Our college based real world computer forensics training is designed for busy professionals. Training occurs during the evening. Class size is limited to afford increased interaction between the instructor and students. US and Canadian Examiner students have the option of using any cellular or hard wired telephone when unavoidably away from their audio/video communications computer. Long distance telephone calls are initiated via Skype by the instructor.

Both 6-week Computer Forensics Examiner courses occur Monday through Thursday from 6:30-8:30 p.m. Central. The 6-week courses are eligible for both WIA and VA grants as well as substantial computer forensics hardware and software educational discounts.

Online Forensics Examiner Instructor

The instructor possesses professional training and experience second to none. Possessing bachelor and masters university degrees, the instructor additionally attended special agent academies for the Department of the Treasury, US Customs Service, Naval Criminal Investigative Service and USAF Office of Special Investigations. Applicable technical training was principally hosted by the Treasury Department and Central Intelligence Agency. A former field grade intelligence officer with the USAF and US Army, he is a decorated Vietnam air combat veteran. Retiring at age 53 with a quarter century of federal law enforcement experience, he served as field agent, field supervisor and headquarters staff, including service as a national program manager for computer forensics. In addition to well over a decade of US Government computer

Consult www.CompuForensics.com for locations and class dates. Refer additional questions to info @compuforensics.com or 931-287-9009.

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forensics experience, he has taught computer forensics since 1999 at regionally accredited universities and colleges.

Prerequisites and Resources

Student Background

All students should be fluent in English. All lectures, laboratories and videos are provided solely in English. The online format does not lend itself well to those with hearing or sight disabilities. Basic Examiner students should minimally have prior experience in loading the Microsoft Windows operating system and applications, copying/moving/linking files using Windows Explorer, and be familiar with the use of menu options. Advanced Examiner students should have successfully completed the Basic Examiner course. Prior experience with Linux, Mac OSX or computer forensics is not required. Those with prior computer forensics training and/or experience may enroll in the Advanced course with instructor approval. Advanced course tuition is $599 for those who have not attended our Basic course.

Basic/Advanced Computer System Requirements

Audio Headset - Use of an ear phone with an integrated microphone is required to avoid background noise and echo effects. Suitable head phones with integrated microphones are widely available for as little as $20. Student microphones should be muted when not used for talking.

Audio/Video Computer - A laptop, desktop or tower computer running Skype is recommended. Our Flash and HTML 5 implemented Power Point presentation interface should be compatible with all major browsers. With the addition of HTML 5 support, iPhone, iTablet as well as Android phones and tablets are now supported. Flash and HTML 5 video test links are available at www.CompuForensics.com. Skype teleconferencing software is available for Windows, Macintosh and Linux operating systems. Download a free copy of Skype from www.Skype.com. Students should provide the instructor with their Skype name at least several days prior to the first day of class. So long as this computer is running Windows XP, Vista or Windows 7/8, use of an additional exercise computer is not required by Basic Examiner students.

Exercise Computer - Since the Advanced Examiner course involves some rebooting during online laboratory sessions, simultaneous use of a separate forensic exercise computer is recommended. The exercise computer should be minimally equipped with a DVD-ROM bootable drive.

The exercise computer should minimally be configured with a Pentium IV or equivalent processor running at 1.6 GHz or faster, 2 gigabytes of RAM (Random Access Memory) and 30 gigabytes of free hard disk capacity (needed for those intending to optionally install OpenSuSE Linux). Use of RAID or unusually large drives is not recommended. While the exercise computer can be a notebook, use of a desktop or tower with at least one available removable drive bay is preferred for those intending to use their exercise computer to do computer forensics analysis at the conclusion of the Advanced course.

The exercise computer should contain Windows XP (Vista or Windows 7/8 can be used with the understanding that at least one Windows forensic training utility may not be fully supported). DEFT 8.1 will be the Linux distribution primarily used during the course and Advanced students will receive the DEFT Live/Install DVD by mail along with study materials and software on a CompuForensics CDROM. Code Weavers Crossover will be used to run Windows applications under Open SuSE Linux. Since Linux can read and analyze Mac OSX, no Mac hardware is needed. Use of a virtual exercise computer on the Audio/Video Computer in lieu of a separate exercise computer is authorized with the understanding that support is limited to the WMWare freeware Player. VMWare Workstation and Player have been used successfully by students.

Exercise Software - Required preliminary and comprehensive forensic exercise images are available in Norton Ghost, Safeback 3.0, WinHex and Active Disk Image formats. If used, Norton Ghost should be 2001, 2002 or 2003; Ghost 10 is the last version to include Ghost 2003. Possession of a personal or higher licensed version of WinHex disk editor is recommended for the Basic Examiner course; the specialist or higher license is recommended for those intending to do forensics after the course. A personal license copy (about $50 US) will support most WinHex instruction requirements. The trial ware version of WinHex can be used with the understanding that several of the WinHex exercises will not be supported. Advanced students should optionally possess a bootable Knoppix 7.2 CDROM and OpenSuSE 11.1 DVDROM; download links for Knoppix 7.2 and OpenSuSE 11.1 are available at CompuForensics.com. Only Skype is needed during the first week of the Basic course.

Students having attended at least 80% of scheduled classes in both courses and satisfactorily completing a case based comprehensive exercise are issued a university certificate of completion signed by a college dean or comparable official. Successful completion also results in the award of 10 continuing education units for each course.

Basic 50-hour Course - $499

1st Week - System Preparation & Overview
Using VOIP & Flash/HTML 5 Video Website
Use of Write Blocks and Drive Docks
Forensic Workstation(s) Configuration
Drive Partitions & ISO Images
Preliminary & In Depth Analysis

2nd Week - Searches & Business Issues
Preparing for a Computer Search
On-site Computer Search Guidelines
On-site UNIX & Linux System Searches
Forensic Staffing & Employment
Marketing & Business Considerations
Peer Certification & State Licensing Issues

3rd Week - Evidence Handling & Disk Imaging
Computer Evidence Handling & Documentation
Restored Evidence Drive Preparation
Target System Backup Imaging
Exercise Image Restoration Laboratory
Ghost, Safeback, WinHex, Linux DD & Active@ Disk

4th Week - Windows Forensic Utilities
Examiner CD-ROM Content Review
Access Data's Forensic Tool Kit & Laboratory
Xways' WinHex Disk Editor & Laboratory
Quick View Plus Laboratory

5th Week - Computer Hardware & OS Basics
Windows Microcomputer Fundamentals
Floppies, Disk Platters & External Storage
Windows Analysis Fundamentals
Local & Wide Area Network Fundamentals

6th Week - Internet Investigations
Internet, UseNet & Internet Relay Chat
Internet Privacy & Sources of Information
Understanding and Investigating Hackers
E-mail Header Analysis & Privacy
Cell Phone Vulnerability & Investigations

Pedophile/Stalker Analysis

Advanced 50-hour Course - $599

1st Week - Hidden Data & Encryption
Hidden Data & Steganography
Steganography Laboratory
Encryption/Decryption Laboratory
Erased File Restoration Laboratory

2nd Week - Linux/Windows Installation
Major Linux Distribution Overview
Linux File System Standard & File Control System
OpenSuSE Installation (optional) & Knoppix Live
DEFT Imaging, Analysis & Support Utilities
Mac OSX Analysis Using DEFT Forensics
Windows Emulation and Code Weavers CrossOver

3rd Week - Linux Analysis of Windows
Linux OS Command Line Laboratory
Linux GUI Applications Laboratory
Internet Activity Reconstruction
Shell Scripts & Compiling Source Code

4th Week - Comprehensive Exercise
Comprehensive Exercise Partition Preparation
Exercise Image Restoration & Documentation
Narcotics Investigation Group Comprehensive
Court Exhibit Preparation Techniques
Discussion of Comprehensive Findings

5th Week - Technical Investigative Report
Technical Investigative Report Overview
Predication/Synopsis & Cover/Attachments
Evidence Receipt & Image Restoration Paragraphs
Witness & Suspect Interview Paragraphs
Forensic Disk Analysis Paragraphs

6th Week - Court/Legal Issues
Fourth Amendment - Search & Seizure
Federal Rules of Criminal/Civil Procedure
Court Legal Precedence
Preliminary Hearings & Disclosure
Courtroom Demeanor & Expert Testimony