

## College Based Online Training

CompuForensics, in association with fully accredited state universities and colleges, 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 software. Lectures and laboratories are augmented by Power Point multimedia presentations hosted by password protected high speed XML web sites (CompuPic.Net or alternate web site). The below left graphic depicts a student audio/video computer desktop. Skype audio is augmented by the multimedia Power Point presentation running in Internet Explorer.

Our college based real world computer forensics training is designed



for busy professionals. Training occurs during the afternoon or evening with an option for telephonic participation when unforeseen circumstances mandate. Class size is limited to afford increased interaction between the instructor and students.

Continental 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.

Instructor audio is saved for later use with multimedia web sites by students who missed live sessions. Said participation does not, however, count toward the 70% attendance required for successful course completion.

The 12-week Computer Forensics Examiner classes occur Monday through Thursday. Afternoon classes are held from noon to 2:10 p.m. and evening classes from 6-8:10 p.m.; all times are US Central. The 3 -week Mac Analysis Using Linux classes occur Monday through Thursday from 6-8:00 p.m. Central. The 12-week course is 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, agent 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 forensics experience, he has taught computer forensics since 1999 at universities.



## ***Prerequisites and Resources***

### **Student Background**

All online 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.

Twelve week examiner students should minimally have prior experience in loading the Microsoft Windows XP operating system and applications, copying/moving/linking files using Windows Explorer, and be familiar with the use of classic menu options under XP. Prior use of basic Command Prompt utilities such as format, change directory, rename, delete and copy is also required. A+ or comparable computer hardware background is minimally desirable. Prior experience with Linux or computer forensics is not required.

### **12-Week Examiner 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 new Flash implemented Power Point presentation interface should be compatible with all major browsers. Skype teleconferencing software is available for Windows, Macintosh and Linux operating systems. Download a free copy of Skype from [www.Skype.com](http://www.Skype.com). GoToMeeting may replace Skype in some instances.

**Exercise Computer** - Since the 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, 512 megabytes of RAM (Random Access Memory) and 30 gigabytes of free hard disk capacity. 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 course. The exercise computer should contain Windows XP (Vista or Windows 7 can be used with the understanding that some Windows

forensic utilities may not be fully supported). OpenSuSE 11.1 Linux will be installed during the initial weeks of the course. Code Weavers Crossover will be used to run Windows applications under Linux. Use of a virtual exercise computer on the Audio/Video Computer in lieu of a separate exercise computer is authorized with the understanding that limited support for virtual operating environments is provided. VMWare Workstation and Player, as well as Oracle's Virtual Box, 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 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. Students should additionally possess a bootable Knoppix 5.1.1 CD-ROM; download links for Knoppix 5.1.1 and OpenSuSE 11.1 are available at [CompuForensics.com](http://CompuForensics.com).

### **12-Week Examiner Course Resources**

Students are provided a NIJ Mock Trial DVD and CompuForensics bootable CD-ROM by US Mail. The NIJ DVD is also provided students in the Court/Legal issues sub-course, which is a part of the 100-hour 12 week Examiner course. The bootable CD-ROM contains software and instructional material relating to the analysis of Windows computers.

Students having attended at least 70% of scheduled classes and satisfactorily completing a case based comprehensive exercise are issued a college certificate of completion signed by a college dean or comparable official. Successful completion also results in the award of 10 continuing education units. Some students may have the option of using the participating school's laboratory computers; in such instances, school laboratory fees are likely to apply. As in conventional classroom instruction, registration and tuition is handled by the hosting university or college.

The online forensics examiner course syllabus includes essential and most popular components of previously offered 6-day Examiner Basic and 5-day Examiner Advanced courses. Although a few hours longer than the replaced Basic and Advanced courses combined, course tuition is a

**quarter that of replaced on-campus courses; \$2995 Savings.**

## **Examiner 100-hour Course - \$995**

### **1st Week - System Preparation & Overview**

Using VOIP & CompuPic Video Site  
Exercise Computer Compatibility  
Forensic Workstation(s) Configuration  
Preliminary & In Depth Analysis  
Examiner CD-ROM Content Review

### **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 & Licensing Issues

### **3rd Week - Linux/Windows Installation**

OpenSuSE 11.1 Installation  
Linux Distributions & File Control Systems  
KDE GUI Information & YaST Navigation  
Linux Desktop Configuration  
Code Weavers CrossOver

### **4th Week - Evidence Handling & Disk Imaging**

Computer Evidence Handling & Documentation  
Restored Evidence Drive Preparation  
System Backup Imaging Laboratory  
Exercise Image Restoration Laboratory  
Safeback, WinHex & Linux DD Imaging

### **5th Week - DOS/Windows Forensic Utilities**

DOS Analysis Tools Laboratory  
Access Data's Forensic Tool Kit & Laboratory  
Xways' WinHex Disk Editor & Laboratory  
Quick View Plus Laboratory

### **6th Week - Computer Hardware & OS Basics**

Microcomputer Fundamentals  
Floppies, Disk Platters & External Storage  
DOS to Windows 8 Analysis Fundamentals  
Local & Wide Area Network Fundamentals

### **7th Week - Hidden Data & Encryption**

Hidden Data & Steganography  
Steganography Laboratory  
Encryption Laboratory  
Decryption Laboratory  
Erased File Recovery Laboratory

### **8th Week - Linux Analysis of Windows**

Linux OS Command Line & GUI Laboratory  
Target System Documentation Laboratory  
Internet Activity Reconstruction  
Shell Scripts & Compiling Source Code  
Linux Screen Capture & Graphics Editing

### **9th Week - Comprehensive Exercise**

Comprehensive Exercise Partition Preparation  
Exercise Image Restoration & Documentation  
Court Exhibit Preparation Techniques  
Realistic Criminal Case Analysis  
Discussion of Exercise Findings

### **10th Week - Technical Investigative Report**

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

### **11th Week - Internet Investigations**

Internet, UseNet & Internet Relay Chat  
Internet Sources of Information  
Hacker Profile Analysis  
E-mail Header Analysis  
Child Pornography Investigations  
Pedophile/Stalker Analysis

### **12th Week - Court/Legal Issues**

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

## Court/Legal Issues 8.5 Hour Course **\$135**

The twelfth and final week of the 100-hour examiner course is also available as a separate course. No prerequisites are required for this sub-course, which is held during the last week of the scheduled Examiner afternoon and evening courses. Classes are held Monday through Thursday. Afternoon classes meet from noon to 2:10 p.m. Evening classes meet from 6:00 to 8:10 p.m. All times are US Central; daylight saving time may apply. Students receive the NIJ Mock Trial DVD by US Mail. A web cam is recommended for use during the last day of class.

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

## Mac Analysis Using Linux **\$349**

The 100-hour 12-week live on-line Computer Forensics Examiner course provides computer professionals with the training needed to begin performing Windows computer forensics; Linux and Windows, including WinHex and FTK, are employed. The newly introduced 24-hour 3-week live on-line Mac Analysis Using Linux course expands forensic examiner skills to include Apple computers. Both courses require A+ or comparable computer literacy. Those enrolling in the Mac forensics course should have additionally taken or plan to take the 12-week examiner course (or comparable training); the 12-week course includes forensic instruction applicable to both Windows and Mac platforms, including 8.5 hours of legal and courtroom instruction needed for licensing in some states.

Topics
Introduction/Overview
Mac Forensics Platform
Mac Forensics Software
Mac Hardware Systems
Mac Operating Systems
HFS & HFS Plus File Systems
Mac System Field Analysis
Forensic Disk Imaging Lab
Raw Image Restoration Lab
Image Documentation Lab
WiebeTech Ultra Dock Lab
GUI Utilities Lab
Command Line Utilities Lab
Mac File Recovery Lab
Mac Encryption/Decryption
Comprehensive Exercise
Exercise Findings/Exhibits

For information, contact CompuForensics  
by e-mail at [info@ugov.net](mailto:info@ugov.net)  
or call 931-287-9009.



For Enrollment and Tuition, contact  
participating universities and colleges.  
A current campus listing can be found at  
[www.CompuForensics.com](http://www.CompuForensics.com).