

# DF310

## EnCE Prep with OpenText EnCase Forensic 8

### Training facilities

**Los Angeles, CA (Pasadena, CA)**

1055 East Colorado Boulevard  
Suite 400  
Pasadena, CA. 91106-2375

**Washington, DC (Dulles, VA)**

21000 Atlantic Boulevard  
Suite 750  
Dulles, VA. 20166

**London, UK (Reading)**

420 Thames Valley, Park Drive  
Earley, Reading RG6 1PT

For a complete listing of locations, including Authorized Training Partners around the world, please visit

[www.opentext.com/encasetraining](http://www.opentext.com/encasetraining).

### Syllabus

This course is designed as a review of the skills that are applicable to the EnCE certification process taught during the Foundations of Digital Forensics and Building an Investigation courses. The course prepares students to successfully complete the Phase I and Phase II EnCE of the certification examination.

The instruction is intended as a review of previously delivered material and is purposely not as in-depth as that provided during the full-length courses. This course should not be construed as a replacement for the full-length Foundations of Digital Forensics and Building an Investigation courses and, due to the pace at which this class runs, basic experience using OpenText™ EnCase™ Forensic is encouraged.

### Day 1

Day one starts with an introduction to the EnCase Forensic Version 8 (EnCase Forensic) and examination methodology. Attendees review the techniques for creating a case and working within the EnCase environment, and then walk through the steps for acquiring an evidence file, working with single files and creating EnCase logical evidence files.

Discussions on the concept of digital evidence and how computers work—paying particular attention to the associated impact on forensic examination—are also included. Attendees are provided instruction on the use of the EnCase Evidence Processor and participate in a discussion of the FAT, exFAT and NT file systems.

The day's instruction concludes with the auditing of a physical device, including the examination, identification and recovery of logical disk structures.

### The main areas covered on day one include:

- Exploring EnCase Forensic concepts and acquisitions
- Understanding EnCase methodology
- Creating an EnCase case file
- Navigating within the EnCase environment
- Understanding EnCase Forensic concepts
- Understanding the structure and function of EnCase evidence files, case files and configuration files
- Examining live and acquired evidence using EnCase Forensic
- Understanding EnCase acquisition concepts
- Understanding the concept of digital evidence and its impact on an investigation

- Safeguarding, handling and preserving evidential data
- Using basic techniques of acquiring a forensically sound copy of data from a thumb drive or other removable disk
- Creating EnCase logical evidence files from single files or acquired evidence
- Using the EnCase Evidence Processor
- Using data allocation and file systems
- Identifying physical and logical disk and file structures
- Defining EnCase file types
- Reviewing basic functions of the NTFS, FAT and ExFAT file systems
- Auditing physical disk allocation and recovering logical structures with EnCase
- Closing the case—reacquiring, restoring and archiving the case
- Analyzing file signatures to determine the true identity of objects

## Day 2

Day two begins with reviewing the functionality and use of EnCase Forensic to efficiently examine digital evidence. The day starts with a review of performing signature and hash analyses of data in EnCase.

We continue instruction with the installation of external viewers within EnCase, identifying and viewing the structure of compound files and copying data from an EnCase evidence file. Instruction then moves to searching evidence in EnCase, including the use and differences in raw searches and index searches and keyword development.

Searching instruction continues with the examination of unallocated clusters and the implementation of the EnCase GREP operators in raw searches. As part of this instruction block, the concepts of bookmarking swept, single, multiple items and structured items, as well as EnCase tagging are reviewed. The day concludes with the first block of instruction in examining data in EnCase and a review of the Windows registry.

### The main areas covered on day two include:

- EnCase functions
- Signature analysis
  - An automated comparison of the displayed file extension with the actual file content
- Hash analysis
  - Creating hash libraries and hash sets in EnCase
  - Adding hash values to the hash sets and library
  - Using hash values to identify/exclude files without visually examining each one

- Installing and using external viewers
- Reviewing copy options within EnCase
- Searching evidence in EnCase
- Advanced search techniques using index and raw searching in EnCase
  - Creating keywords for raw searching
  - Implementing physical and logical raw searching with EnCase
  - Using GREP operators within EnCase to construct advanced search terms
  - Creating advanced index search terms to quickly locate responsive data in data and metadata
  - Using index operators to further create robust search terms
  - Saving and working with search terms and results
- Compound file examinations
  - Viewing the structure and searching of compound files
  - Pitfalls of not examining compound files properly
- Examining printing artifacts with EnCase
- Windows registry
  - Location of the Windows registry hives and their function
  - Elements of the Windows registry
    - Registry keys (folders) and values
    - Registry value types
  - Location of system time zone settings
  - Setting the time zone in EnCase

## Day 3

Instruction on day three continues with examining data in EnCase. The day begins with discussing the location and function of common Windows artifacts that often provide vital information to investigations. We then take a closer look at the function and structure of Windows link files (shortcuts), identifying critical locations within the structure to gather intelligence information for the link file's respective target.

Attendees will also review the function of the Windows Recycle Bin, including the impact on the file system and associating the Window's Security Identifier to a named user account. Examining data in EnCase continues with examining and bookmarking email, internet history and cache content, concluding with the exploration and identification of removable USB devices used on a Windows computer. The course concludes with hands-on instruction in creating, editing and exporting a report in EnCase.

## The main areas covered on day three include:

- Examining evidence with EnCase (continued)
- Analyzing Windows artifacts
  - User account information and associated data
  - System folders and files of interest
- Examining link files
  - Deconstructing link files to reveal internal structures relating to their target files
- Recycle Bin recovery
  - Examination of the Recycle Bin, its properties and function
  - Linking Recycle Bin data to the associated user
  - Identifying registry entries controlling operation of the Recycle Bin
- Email/internet examination
  - Examining email and methods available within EnCase to locate and parse email data stores
  - Navigating email, including different view modes in EnCase and locating email attachments
  - Identifying email conversations and their related messages
  - Exploring the results of activity on the internet, including cookies, history, web cache and bookmark data
- Identifying registry entries that document USB device usage, and describing the function of the USB device descriptor
- Reporting with EnCase
- Create, edit and export an examination report using EnCase
  - Hands-on reviewing of editing the report template and saving as an EnCase template for use in future investigations
- Reviewing course content in preparation for the EnCase Certification Examination