

Mobile Forensics Expert

This course is mapped to Mobile Forensics Expert Certification Exam from US-Council.

This course is designed for forensic investigation professionals and deals with Mobile forensics. The course assumes a prerequisite knowledge of computer security and digital data structures as well as the legal aspects of admissibility of evidence in court. It covers the essentials of Mobile File Structures, Data Extraction, Analysis and Reporting. This course will teach investigators the tools and techniques to perform Mobile Data Extraction, Mobile Data Analysis and Evidence Reporting on different mobile devices.

Forensic Acquisition of Smartphones

- Logical Acquisition
- ▶ File System Acquisition
- Physical Acquisition
- Advanced Methods

Android Forensics

- Android Architecture
- Android Components
- ▶ NAND Flash Memory in Android Devices
- ▶ Android File System Overview

Android File System Structures

- Data Structure Layout
 - o Physical
 - o File system
 - o Logical
- Data Storage Formats
- Physical and Logical Keyword Searches

Retrieving User Activity Information from Android Devices

- Android Applications
- Data Structures on Android Smartphones
 - o SMS/MMS
 - o Calls, Contacts, and Calendars
 - o E-mail and Web Browsina
 - o Location Information
 - o Third-Party Applications
- ▶ Retrieving Deleted SQLite Records
- Retrieving Deleted Data from Raw Images on

Android Devices

Handling Locked Android Devices

- Security Options on Android
- Methods for Bypassing Locked Android Devices
- Bypassing Android Security and Encryption

iOS (iPhone) Forensics

- ▶ iOS Architecture
- ▶ iOS Components
- NAND Flash Memory in iOS Devices
- ▶ iOS File Systems

- ▶ iOS Versions
- ▶ iOS Encryption

iOS File System Structures

- Data Structure Layout
 - o Physical
 - o File System
 - o Logical
- Data Storage Formats
- Physical and Logical Keyword Searches

iOS Evidentiary Locations

- Primary Evidentiary Locations
- Unique File Recovery
- Parsing SQLite Database Files
- Manual Decoding of iOS Data

Retrieving User Activity Information iOS Devices

- ▶ iOS Applications
- ▶ Deep Dive into Data Structures on iOS Devices
 - o SMS/MMS
 - o Calls, Contacts, and Calendar
 - o E-mail and Web Browsing
 - o Location Information
 - o Third-Party Applications
- Retrieving Deleted SQLite Records
- Retrieving Deleted Data from Raw Images

Handling Locked iOS Devices

- Security Options on iOS
- Current Acquisition Issues
- Bypassing iOS Security