

# Computer Forensics and Investigations, Skill Labs

## Course Specifications

Course Number: ACI76-045SL\_rev1.0

Lab Length: Approximately 15 hours

## Understanding the Digital Forensics Profession and Investigations

### Introduction

#### Objective

The MindTap Live Virtual Machine Labs have been updated to reflect changes needed to incorporate software and tool updates. As a result of these changes, there may not be a 1 to 1 correlation between the directions provided in the Live Virtual Machine Lab environment and the Hands-on Projects located in the book. When using the MindTap Live Virtual Machine Labs, be sure to follow the directions in the MindTap environment as those are the most accurate for the new software.

The Understanding the Digital Forensics Profession and Investigations lab provides you with the instructions and devices needed to develop your hands-on skills in the following topics.

- Exercise 1-1 Acquiring an Image of Evidence Media
- Exercise 1-2 Analyzing Your Digital Evidence
- Hands-On Project 1-1
- Hands-On Project 1-2
- Hands-On Project 1-3
- Hands-On Project 1-4

## Data Acquisition

### Introduction

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The Data Acquisition module provides you with the instructions and devices to develop your hands-on skills in the following topics:

### Overview

#### Exam Objectives:

- Exercise 3-1 Preparing a Target Drive for Acquisition in Linux
- Exercise 3-2 Acquiring Data with dd in Linux
- Hands-On Project 3-3

- Hands-On Project 3-4

## Processing Crime and Incident Scenes

### Introduction

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The Processing Crime and Incident Scenes lab provides instructions and devices to develop your hands-on skills in the following topics.

- Exercise 4-1 Conducting the Investigation: Acquiring Evidence with OSForensics
- Hands-On Project 4-3
- Hands-On Project 4-4
- Hands-On Project 4-5

## Working with Windows and CLI Systems

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The Working with Windows and CLI Systems lab provides you with the instructions and devices to develop your hands-on skills in the following topics.

- Exercise 5-1 - Disk Partitions
- Exercise 5-2 - Deleting NTFS Files
- Exercise 5-3 - Examining the Windows Registry
- Hands-On Project 5-1
- Hands-On Project 5-2
- Hands-On Project 5-3
- Hands-On Project 5-4

## Current Digital Forensics Tools

### Introduction

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## Course Outline

in the book. When using the MindTap Live Virtual Machine Labs, be sure to follow the directions in the MindTap environment as those are the most accurate for the new software.

The Current Digital Forensics Tools lab provides you with the instructions and devices to develop your hands-on skills in the following topics:

- Hands-On Project 6-2
- Hands-On Project 6-3
- Hands-On Project 6-4

## Linux and Macintosh File Systems

### Introduction

#### Objective

The Linux and Macintosh File Systems module provides you with the instructions and devices to develop your hands on skills in the following topics:

- Using Sleuth Kit and Autopsy
- Hands-On Project 7-1
- Hands-On Project 7-2
- Hands-On Project 7-3

## Recovering Graphics Files

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The Recovering Graphics Files lab provides you with the instructions and devices to develop your hands-on skills in the following topics.

- Exercise 8-1 Searching for and Recovering Digital Photograph Evidence
- Hands-On Project 8-1
- Hands-On Project 8-2
- Hands-On Project 8-3
- Hands-On Project 8-4
- Hands-On Project 8-5

## Digital Forensics Analysis and Validation

### Introduction

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## Course Outline

between the directions provided in the Live Virtual Machine Lab environment and the Hands-on Projects located in the book. When using the MindTap Live Virtual Machine Labs, be sure to follow the directions in the MindTap environment as those are the most accurate for the new software.

### Chapter 9 - Digital Forensics Analysis and Validation

The Digital Forensics Analysis and Validation lab provides you with the instructions and devices to develop your hands-on skills in the following topics.

- Using the Index Feature in OSForensics
- Hands-On Project 9-1
- Hands-On Project 9-2
- Hands-On Project 9-3
- Hands-On Project 9-4

## Virtual Machine Forensics, Live Acquisitions, and Network Forensics

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The Virtual Machine Forensics, Live Acquisitions, and Network Forensics lab provides you with the instructions and devices to develop your hands-on skills in the following topics.

- Hands-On Project 10-1
- Hands-On Project 10-3

## E-mail and Social Media Investigations

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The E-mail and Social Media Investigations lab provide you with the instructions and devices to develop your hands-on skills in the following topics.

- Exercise 11-1 Using OSForensics to Recover E-mail
- Hands-On Project 11-1
- Hands-On Project 11-2
- Hands-On Project 11-3

## Mobile Device Forensics

### Introduction

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The Mobile Device Forensics lab provides you with the instructions and devices to develop your hands-on skills in the following topics.

- Hands-On Project 12-1
- Hands-On Project 12-2
- Hands-On Project 12-3

### Cloud Forensics

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The Cloud Forensics module provides you with the instructions and devices to develop your hands-on skills in the following topics.

- Hands-On Project 13-1
- Hands-On Project 13-2
- Hands-On Project 13-3
- Exercise 13-1 Windows Prefetch Artifacts
- Hands-On Project 13-4

### Report Writing for High-Tech Investigations

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The Report Writing for High-Tech Investigations module provides you with the instructions and devices to develop your hands-on skills in the following topics.

- Exercise 14-1 Using ProDiscover Basic to Generate Reports
- Exercise 14-2 Using OSForensics to Generate Reports
- Hands-On Project 14-1

- Hands-On Project 14-2
- Hands-On Project 14-3
- Hands-On Project 14-4

## Expert Testimony in Digital Investigations

### Introduction

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The Expert Testimony in Digital Investigations module provides you with the instructions and devices to develop your hands-on skills in the following topics.

- Exercise 15-1 Preparing Forensics Evidence for Testimony
- Hands-On Project 15-1
- Hands-On Project 15-2
- Hands-On Project 15-3
- Hands-On Project 15-4

## Ethics for the Expert Witness

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The Ethics for the Expert Witness module provides you with the instructions and devices to develop your hands-on skills in the following topics.

- Exercise 16-1 Determining Hexadecimal Values for Text Strings
- Hands-On Project 16-1
- Hands-On Project 16-2
- Hands-On Project 16-3
- Hands-On Project 16-4