INFOSEC Skills

Get live, expert instruction from anywhere.



Data Recovery Boot Camp

Learn how to recover sensitive data from damaged or partially destroyed hard drives, solid-state media and removable media! A combination of hands-on labs and expert instruction builds your knowledge around data recovery and prepares you to become a Certified Data Recovery Professional (CDRP).

Course description

Infosec's Data Recovery Boot Camp provides the most detailed logical and physical data recovery training available. You'll learn the fundamentals of hardware data recovery, including how to properly diagnose dead drives and bring them back to life. You will also learn logical recovery for Windows, Mac OS X, Linux, RAID arrays, Exchange server and even solid-state flash NAND drives!

Get practical data recovery experience through a series of handson labs that teach you how to perform intermediate- to advancedlevel logical recoveries. The combination of practical labs and expert instruction ensures you'll leave the boot camp with skills that directly transfer to the workplace.

Who should attend

- » Information security officers & managers
- » Network administrators
- » Windows administrators
- » Forensics investigators
- » Anyone interested in building their data recovery skills

Boot camp at a glance



> Hands-on training

- Practice your skills with hands-on labs
- Learn how to safely recover lost data from a variety of drives
- Practice logical recovery for Windows, Linux, Mac OS X and more!



Delivery methods

- Online
- 🗸 🛛 In person
- Team onsite



Training duration

- Immediate access to Infosec Skills
- ✓ 5-day boot camp
- 90-day extended access to all boot camp materials

The hands-on cybersecurity training platform that moves as fast as you do

Infosec Skills boot camps are engineered to match the way today's cybersecurity professionals prefer to learn. In addition to days of live training from an experienced pro, you'll get unlimited access to 100s of additional hands-on cybersecurity courses and cyber ranges to help you advance your skills before, during and after your boot camp. Your Infosec Skills access extends 90 days past your boot camp, so you can take additional time to prepare for your exam, or get a head start on your next certification goal.



Start training immediately

Prepare for your boot camp with immediate access to the Infosec Skills on-demand training library.



Learn by doing in the cyber range

Put what you've learned into practice with 100s of browser-based labs and hands-on projects.

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Get unlimited custom practice exams

Uncover knowledge gaps with unlimited practice exams attempts and skill assessments.

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700+ IT and security courses

Earn CPEs and build new skills with 100s of additional training courses.

What's included

- » Five days of expert, live Data Recovery instruction
- » Exam Pass Guarantee
- » Exam voucher
- » Unlimited practice exam attempts
- » 100% Satisfaction Guarantee
- » Free 90-day Infosec Skills subscription (access to 1,400+ additional courses and labs)
- » 90-day extended access to all boot camp video replays and materials
- » Onsite proctoring of exam
- » Knowledge Transfer Guarantee

Prerequisites

- » Firm understanding of the Windows operating system
- » Firm understanding of computer hardware
- » Knowledge of how to perform basic beginner-level logical recoveries of drives



What you'll learn

- » Logical recovery of disabled hard drives
- » Motions that unlock the actuator of a drive
- » Logic board replacements
- » P-List and G-List recovery
- » Reverse scanning
- » Head stack replacement
- » Diagnosing "clicking noises"
- » RAID 0 recovery & RAID 5 recovery
- » Solid-state drive recovery
- » Using file format recognition tools
- » Diagnosing the physical recovery of drives
- » Single and multi platter swaps
- » Addressing SMART values
- » Capturing SID protected folders
- » Working with the Service Area (SA) of a drive
- » Mac OS X data recovery
- » Vista and recovery of shadow copies
- » Firmware issues
- » Logical recovery via avoiding BIOS interruptions
- Comparing pre-recorded sound samples to live drives
- » Head assembly replacement
- » Dealing with damaged sectors

- » Resolving kernel or driver issues with a Linux bootable disk
- » Reviewing data structures with a hex editor
- » Linux data recovery
- Clearing passwords on a password-protected drive

Industry-leading exam pass rates

Infosec's courseware materials are always up to date and synchronized with the latest CDRP exam objectives. Our industry-leading curriculum and expert instructors have led to the highest pass rates in the industry. More than 93% of Infosec students pass their certification exams on their first attempt.

Learn from experts

We don't just have great instructors, our instructors have years of industry experience and are recognized as experts. Over the past 15 years, we've helped tens of thousands of students get certified and advance their careers.

Skill up and get certified, guaranteed



Exam Pass Guarantee

If you don't pass your exam on the first attempt, get a second attempt for free. Includes the ability to re-sit the course for free for up to one year.



100% Satisfaction Guarantee

If you're not 100% satisfied with your training at the end of the first day, you may withdraw and enroll in a different online or in-person course.



Knowledge Transfer Guarantee

If an employee leaves within three months of obtaining certification, Infosec will train a different employee for free for up to one year.



What our students are saying

I really appreciate that our instructor was extremely knowledgeable and was able to provide the information in a way that it could be understood. He also provided valuable test-taking strategies that I know not only helped me with this exam, but will help in all exams I take in the future.

Michelle Jemmott

Pentagon

Excellent! Our instructor had a vast background and related the materials to real life. Much better than just teaching the materials to pass an exam ... but he did that as well. He went out of his way in class. The extra materials really benefited us when we returned to our real jobs! Great experience!

John Peck EPA

Very impressed with Infosec. My instructor did a great job delivering the information strategically and in a way for all to understand. I would definitely take another class/certification prep course.

Sylvia Swinson

Texeltek

The instructor was able to take material that prior to the class had made no sense, and explained it in real-world scenarios that were able to be understood.

Erik Heiss

United States Air Force

The course was extremely helpful and provided exactly what we needed to know in order to successfully navigate the exam. Without this I am not confident I would have passed.

Robert Caldwell Salient Federal Solutions



Data Recovery Boot Camp details

Our instructors give you 100% of their time and dedication to ensure that your time is well spent. You receive an immersive experience with no distractions! The typical daily schedule is:

	Day 1	Day 2	Day 3	Day 4	Day 5
Morning session	Foundations of data recovery	Intermediate hardware data recovery	Data preservation and Windows logical recovery	Linux, Mac OS X and RAID recoveries	Advanced topics in data recovery
Afternoon session	Hardware data recovery	Intermediate hardware data recovery	Data preservation and Windows logical recovery	Linux, Mac OS X and RAID recoveries	Take CDPR exam
Evening session	Optional group & individual study	Optional group & individual study	Optional group & individual study	Optional group & individual study	

Schedule may vary from class to class

Before your boot camp

Start learning now. You'll get immediate access to all the content in Infosec Skills, including an in-depth boot camp prep course, the moment you enroll. Prepare for your live boot camp, uncover your knowledge gaps and maximize your training experience.

During your boot camp

Day 1: Foundations of data recovery & hardware data recovery

Day one focuses on the fundamental skills of data recovery. After the introductory content is complete, a full review of hardware data recovery begins. Before any logical or software recovery can begin, it is imperative to have a functional drive. The introductory content you will explore includes:

» Boot camp introduction

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- » Introduction to the data recovery process
- » Hard drive basics and the air bearing
- » Understanding the working parts of a hard drive

- » Platters, voice coils, logic boards and firmware
- » Cleanroom basics
- » Tools of the trade
- » Software used for hardware recovery
- » Listening to drive sounds for recovery clues
- » Clicking drives
- Comparing pre-recorded sound samples to live drives
- » Understanding success rates
- » How to properly open a drive
- » Understanding motor spin
- » Relationship between spin and air bearing
- » Motions that unlock the arm of a drive
- » Motions that unlock the actuator of a drive
- » Actuator arm functions
- » Investigating the preamp
- » Learn to hand-spin a motor
- » Learn to manually move the actuator arm motion
- » Finding the preamp
- » Principles of applying power to a dead drive
- » Proper power source selection

Day 2: Intermediate hardware data recovery

Day two encompasses a deep discussion on the various technologies and techniques used for hardware data recovery, including analysis and repair. Some of the lectures and hands-on labs you'll perform on day two include:

- » Working in an anti-static environment
- » Learning how to work in a Class 100 cleanroom
- » Understanding how to operate a cleanroom
- » HEPA air filtration and Laminar air flow
- » Data locations on various drives
- » Examining sectors
- » Examine data surrounding a sector
- » Understanding the Services Area (SA)
- » Locating the SA
- » Specialized equipment for manipulating the SA
- » PCB Boards
- » Understanding the PCB
- » Potential recoveries involving the PCB
- » Performing a live PCB swap
- » Diagnosing faulty PCB ROM
- » Identifying donor ROM components
- » Using a SMD rework station to replace faulty PCB ROM
- » Heat guns vs. soldering irons
- Fundamentals of using a heat gun and SMD rework flux
- » Rework flux and 8 PIN ROM SMDs
- » Rework flux and 50 PIN ROM SMDs
- » Heat gun safety
- » Heat and temperature and the
- » role it plays in PCB swaps
- » Where to turn when a PC Board swap does not work as expected
- » Tools for board swapping
- » PC3000 and its capabilities
- » Understanding platter swaps
- » Identifying if a platter swap is feasible
- » Fundamentals of the platter swap
- » Positioning the platter for proper alignment
- » Single platter swaps

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- » Multi-platter swaps
- » Using head combs
- » Creating head combs
- » Head assemblies
- Identifying cases where head assemblies are damaged beyond recovery
- » Head assembly replacement
- » Tools for head assembly replacements
- Protecting drives during head assembly replacements

Day 3: Data preservation and Windows logical recovery

Day three focuses on how to recover data safely from a spinning drive without damaging the contents of the drive during the recovery process. Various logical recovery issues are explored for the Windows family of operating systems. Some of the lectures and hands-on labs you'll perform on day three include:

- » Software for bit-level images
- » Using DD
- » Improving on DD with DD_Rescue
- » Using MediaTools Pro
- » Using the FTK Imager
- » Viewing data with the FTK Imager
- Resolving issues encountered when exporting data
- Resolving issues encountered when exporting Filenames
- » Disk structure
- » Disk partition design theory
- » Layout of disk partition structure
- » Clearing passwords on a password protected drive
- » PINS vs. Software
- » Specific drive model issues
- » Issues with specific models
- » Variations in drives and manufacturers
- » Casing
- » Using case types for recovery
- » Dates and PCB board firmware
- » Protecting hard drives from changes

- » Software vs. hardware protection
- » Protecting from further damage
- » When to scan a drive and when to use software
- » The effect of scanning on a damaged drive
- » Windows and data recovery
- » Basic Windows recovery
- » Fat32 & NTFS
- » NTFS Explorer
- » Capturing SID protected folders
- » When to use a bootable Linux disk for recovery
- Resolving kernel or driver issues with a Linux bootable disk
- Resolving blue screen errors with a Linux bootable disk
- » Connecting to the Internet to use Linux for recovery
- » Scanning file types and header content
- » Using a hex editor to find and search for specific files
- » What files look like
- » Locating files with a hex editor
- » Skipping NTFS and FAT tables when appropriate
- » Reviewing data structures with a hex editor
- » Windows Server OS issues
- » Controlling server data
- » Identifying recycling bin contents
- » Decoding recycling bin contents
- » Identifying registry contents
- » Decoding registry locations
- » Recovery of Exchange Server database
- » Typical Exchange Server damage
- » Importing and exporting messages
- » MDB files and size limitation

Day 4: Linux, Mac OS X and RAID recoveries

Day four covers the recovery of Linux and Mac OS X systems. Additionally, the recovery of RAID arrays is

explained in detail. Some of the lectures and handson labs you will perform on day four include:

- » Linux data recovery
- » File system structure
- » How to review file structure
- » Structure of Linux data
- » Software use to rebuild corrupted or damaged data
- » Mac OS X data recovery
- » Layout of data on a Mac
- » GPT partition
- » T-firewire mode
- » Specific data recovery software for Macs
- » Raid data recovery
- » Understanding RAID 0
- » RAID 0 with four drives
- » Understanding RAID 5
- » RAID 0 recovery
- » RAID 5 recovery

Day 5: Advanced topics in data recovery & CDRP exam

Day five covers advanced topics related to data recovery as well as a review of all the topics included on the Certified Data Recovery Professional (CDRP) exam. You'll finish the day by taking the CDRP exam. Some of the lectures and hands-on labs you will perform on day five include:

- » Advanced topics related to data recovery
- » Review and prep for the CDRP exam
- » Take the CDRP exam

After your boot camp

Your Infosec Skills access extends 90 days past your boot camp, so you can take additional time to prepare for your exam, get a head start on your next certification goal or start earning CPEs.

About Infosec

Infosec's mission is to put people at the center of cybersecurity. We help IT and security professionals advance their careers with skills development and certifications while empowering all employees with security awareness and phishing training to stay cyber-safe at work and home. Learn more at <u>infosecinstitute.com</u>.

