

Course Syllabus

Command Line Basics

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Course Description and Goals

Course Description: Have you been curious about how others can use the command line to save countless hours of work? Are you overwhelmed with the text that runs across the screen, and have no idea where to begin? This course will start you on your journey to become the Hollywood-esque hacker that you want to be.

Graphical tools present pretty pictures, easy to read text, and clicking things on the screen is fun and easy. Imagine that you need to perform a configuration setting on a computer, just click a few buttons and within seconds you're done! Now imagine that you need to perform that same configuration change for 500 computers and that few seconds easily turns into hours of work. With command line tools, it is very feasible to write a command to replicate across hundreds of computers simultaneously, saving you time and removing human error.

This course will introduce the command line and help remove the difficulty to get comfortable with the terminal. It will cover how to open the command line on Windows machines and the terminal on Linux based systems. After opening the command line, it is imperative to learn how to ask for help. This course will cover the most common Windows and Linux commands used to gather information, manipulate data, and configure systems to your needs. Finally,

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this course will cover how to chain multiple commands together, creating powerful and flexible commands to achieve your goals.

Enroll today to get started saving time and effort using the command line!

Prerequisites: Basic computer skills, access to the command line on a Windows machine, and access to the terminal for a Linux machine. A good attitude is imperative, because learning the command line is difficult!

Study Resources:

- ❑ [VMware Player](#) or [Oracle VirtualBox](#)
- ❑ [Linux Mint](#)
- ❑ [SANS 572 Cheat Sheet](#) (ignore the network forensic tools for now)
- ❑ [SANS Hex File Headers and Regex Cheat Sheet](#)
- ❑ [Linux Basics for Hackers](#) by OccupyTheWeb, published by No Starch Press

Course Goals: By the end of this course, students should be able to:

- ❑ Open the Command Line on Windows and Linux machines
- ❑ How to ask for help at the terminal
- ❑ Understand how to navigate the file system with a CLI
- ❑ Use common CLI tools to perform time-saving tasks
- ❑ Chain together commands

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Labs Used:

- ComTIA Linux+
 - Run User Level Queries
 - Perform Basic File Editing Operations using vi
 - Search Text Files using regular expressions
 - Using Shell Input and Output Redirections
 - Use Streams Pipes and Redirects Introduction

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Course Outline

Module 1 | Introduction to the Command Line

- Lesson 1.1: Introduction and Setup (9 mins)
- Lesson 1.2: Opening the Command Line (7 mins)
- Lesson 1.3: Asking for Help (9 mins)

Module 2 | Introductory Commands

- Lesson 2.1: Command Line Survival pt 1 (9 mins)
- Lesson 2.2: Command Line Survival pt 2 (7 mins)
- Lesson 2.3: Changing Directories (9 mins)
- Lesson 2.4: Most Common Linux Tools (10 mins)
- Lesson 2.5: Most Common Windows Tools (8 mins)
- Lesson 2.6: Copy and Paste in Windows Command (4 mins)

Module 3 | Linux Command Line Tools

- Lesson 3.1: Linux Basics 1 (9 mins)
- Lesson 3.2: Linux Basics 2 (7 mins)
- Lesson 3.3: Linux Basics 3 (7 mins)
- Lesson 3.4: Linux Files 1 (7 mins)
- Lesson 3.5: Linux Files 2 (8 mins)
- Lesson 3.6: Linux Files 3 (8 mins)
- Lesson 3.7: Linux Files 4 (9 mins)
- Lesson 3.8: Linux Files 5 (7 mins)
- Lesson 3.9: Linux System 1 (7 mins)
- Lesson 3.10: Linux System 2 (6 mins)
- Lesson 3.11: Linux Networking 1 (7 mins)
- Lesson 3.12: Linux Networking 2 (9 mins)

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Module 4 | Windows Command Line Tools

- Lesson 4.1: Windows Basic Commands (6 mins)
- Lesson 4.2: Windows Files 1 (7 mins)
- Lesson 4.3: Windows Files 2 (6 mins)
- Lesson 4.4: Windows System 1 (8 mins)
- Lesson 4.5: Windows System 2 (8 mins)
- Lesson 4.6: Windows System 3 (6 mins)
- Lesson 4.7: Windows Networking 1 (8 mins)
- Lesson 4.8: Windows Networking 2 (9 mins)
- Lesson 4.9: Windows Networking 3 (6 mins)
- Lesson 4.10: Windows net Command (8 mins)

Module 5 | Advanced Command Line Techniques

- Lesson 5.1: Piping and Ampersands (9 mins)
- Lesson 5.2: Advanced Operands (9 mins)
- Lesson 5.3: For and While Loops (9 mins)
- Lesson 5.4: Linux Shell Scripting (6 mins)
- Lesson 5.5: Windows Batch Scripting (6 mins)
- Lesson 5.6: Course Conclusion (4 mins)

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