

# Advanced Malware Analysis

## COURSE DESCRIPTION

SecureNinja's (5) five-day immersion course is focused on hands-on malicious code analysis. You'll learn how to perform both dynamic and static analysis of all major file types (PE files, Office Documents, PDF documents, etc). You'll learn how to do a volatile memory analysis (carving malicious executables of RAM), and you'll also learn how to deobfuscate malicious javascript.

## WHO WOULD BENEFIT

IT System Administrators, IT Security Professionals

## PREREQUISITES

- Students must have administrative rights on a system that meets the following requirements:
  - At least Windows 7
  - At least 4GB of RAM
  - At least 100GB of disk space
  - Running VMWare 9.0
  - NOTE: We can provide properly configured machines for the class if necessary for an additional fee
- Students should be familiar with using Windows and Linux operating environments and be able to troubleshoot general connectivity and setup issues.
- Students should be familiar with VMware Workstation and be able to create and configure virtual machines.
- Students are recommended to have a high-level understanding of key programming concepts, such as variables, loops, and functions; however, no programming experience is necessary.
- Students will be provided with detailed courseware, detailed lab manuals, and copy/paste notes so that even if the student is not very strong technically they will be able to complete the lab exercises and take notes effectively.

## COURSE LENGTH

- 5 days

## FOLLOW ON COURSES

- Cyber War

## COURSE DETAILS

## Day 1: Dead Box Forensics

- Recovering Deleted Files
- Dealing with steganography
- Dealing with encryption

## Day 2: Dynamic Analysis

- Building an analysis environment
- Identifying Malicious Activity

## Day 3: Static Analysis

- Building a malware database archive
- Identifying malicious capability

## Day 4: Network Traffic Analysis & Network IDS signature development

- PCAP Analysis
- IDS Signature Development

## Day 5: Browser Forensics & Memory Analysis

- Mass Injection Analysis
- Charting malware redirection
- Carving executables out of RAM