

SEC660

Advanced Penetration Testing, Exploit Writing, and Ethical Hacking



JULY 2026 UPDATE: MODERN EXPLOIT DEVELOPMENT FOR TODAY'S OFFENSIVE OPERATIONS

The latest SEC660 update modernizes the advanced penetration testing course with AI-assisted exploit development workflows, refreshed labs, updated tooling, and expanded coverage of modern enterprise attack techniques.

Students now learn how to incorporate AI into exploit research, vulnerability analysis, scripting, and bug discovery while developing advanced offensive skills across network attacks, product security testing, exploit development, and post-exploitation.

The refreshed course also modernizes Windows and Linux exploitation, transitions core labs to 64-bit environments, updates networking and fuzzing modules, and introduces new Capture-the-Flag challenges that better reflect today's enterprise environments.

New Content



- AI-assisted exploit development and vulnerability analysis
- AI-assisted Scapy scripting and automation
- Expanded product security testing
- Modern Man-in-the-Middle attack techniques
- New shellcode development lab
- Enhanced Capture-the-Flag challenges

Updated Features



- Modern Windows 11 and 64-bit exploitation
- Updated virtual machines and offensive tooling
- Refreshed exploit mitigation techniques
- Expanded Docker escape techniques and labs
- Updated cryptographic attack coverage
- Modernized fuzzing and code coverage workflows

Lab Refresh



- AI-assisted exploit analysis and script generation
- 64-bit Linux and Windows exploitation labs
- Updated Scapy and fuzzing exercises
- Enhanced post-exploitation scenarios
- Refreshed product security testing labs
- New exploit development workflows

"Advanced penetration testing is constantly changing. New operating systems, new exploit mitigations, and now AI are changing how offensive security professionals work every day. This update keeps SEC660 aligned with modern attack techniques while teaching students where AI can accelerate research, analysis, and exploit development without replacing the practitioner's expertise." — **Stephen Sims | SEC660 Author**

For more information: sans.org/SEC660

