SEC617

Wireless Penetration Testing and Ethical Hacking

SEPTEMBER 2026 UPDATE: WIRELESS TESTING ACROSS WI-FI, BLUETOOTH, RFID, AND SDR

The latest SEC617 update expands SANS Institute's hands-on wireless penetration testing course with AI-assisted analysis across Wi-Fi, Bluetooth, software-defined radio, RFID, and NFC. It also refreshes Wi-Fi client coverage for Windows 11 and updates the student hardware kit for low- and high-frequency RFID testing.

Students now use AI to support packet and capture analysis, wardrive review, fuzzing, wordlist development, device fingerprinting, and signal decoding. These workflows complement the course's technical coverage of wireless protocols, devices, rogue access points, authentication weaknesses, and physical access systems.

The updated course includes 17 hands-on labs and a final-day Capture the Flag event, with refreshed exercises for 802.11 packet analysis, rogue access point identification, Wi-Fi fuzzing, and wireless signal investigation.

New Content

- AI-assisted analysis across Wi-Fi, Bluetooth, SDR, RFID, and NFC
- Targeted wordlist development and decrypted capture triage
- AI-assisted fuzz target selection and results analysis
- BLE device fingerprinting and target analysis
- SDR frame decoding and RFID/NFC analysis

Updated Features

- Windows 11 Wi-Fi client behavior coverage
- Updated Wi-Fi packet and rogue device analysis workflows
- Low- and high-frequency RFID assessment capabilities
- Proxmark3 Easy added to the student hardware kit
- Refocused coverage across Wi-Fi, Bluetooth, RFID/NFC, and SDR

Lab Refresh

- AI-assisted 802.11 packet analysis
- AI-supported Kismet code analysis
- Wardrive analysis for rogue access point identification
- AI-assisted Wi-Fi fuzzing analysis
- 17 hands-on labs plus a final-day wireless CTF

" It is no longer enough to just be a Wi-Fi expert; you also need to be able to evaluate the entire wireless threat landscape across a whole host of technologies. The skills you will build in this class will be valuable for today's wireless technology, for tomorrow's technology advancements, and for other complex systems you have to evaluate in the future."

— Larry Pesce and James Leyte-Vidal | SEC617 Authors

For more information: sans.org/SEC617

SANS | GIAC CERTIFICATIONS