



xOffensive Security Wireless Attacks

[Title of course summary inserted here]	
Who _____ is for	[Brief Description of copy inserted here] Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.
Skills to Learn	<ul style="list-style-type: none"> • Example 1 • Example 2 • Example 3 • Example 4 <ul style="list-style-type: none"> • Example 5 • Example 6 • Example 7 • Example 8

Learning Module	Learning Units
IEEE 802.11	IEEE
	802.11 Standards and Amendments
	Antenna Diversity vs MIMO
	Wrapping Up
Wireless Networks	Overview
	Infrastructure
	Wireless Distribution Systems

	Ad-Hoc Networks
	Mesh Networks
	Wi-Fi Direct
	Monitor Mode
	Wrapping Up
Wi-Fi Encryption	Open Wireless Networks
	Wired Equivalent Privacy
	Wi-Fi Protected Access
	Wi-Fi Protected Access 3
	Opportunistic Wireless Encryption
	6 Wireless Protected Setup
	802.11w
	Wrapping Up
Linux Wireless Tools, Drivers, and Stacks	Loading and Unloading Wireless Drivers
	Wireless Tools

	Wireless Stacks and Drivers
	Wrapping Up
Wireshark Essentials	Getting Started
	Wireshark Filters
	Wireshark at the Command Line
	Remote Packet Capture
	Advanced Preferences
	Wrapping Up
Frames and Network Interaction	Packets vs Frames
	802.11 MAC Frames

	Frame Types
	Interacting with Networks
	Wrapping Up
Aircrack-ng Essentials	Airmon-ng
	Airodump-ng
	Aireplay-ng
	Aircrack-ng

	Airdecap-ng
	Airgraph-ng
	Wrapping Up
Cracking Authentication Hashes	Aircrack-ng Suite
	Custom Wordlists with Aircrack-ng
	Hashcat
	Airolib-ng
	coWPAtty
	Wrapping Up
Attacking WPS Networks	WPS Technology Details
	WPS Vulnerabilities
	WPS Attack
	Wrapping Up

Rogue Access Points	The Basics of Rogue APs
	Discovery
	Creating a Rogue AP
	Wrapping Up
Attacking WPA Enterprise	Basics
	PEAP Exchange
	Attack

	Wrapping Up
Attacking Captive Portals	Basic Functionality
	The Captive Portal Attack
	Additional Behaviors Surrounding Captive Portals
	Wrapping Up
bettercap Essentials	Installation and Executing
	Modules vs. Commands
	Wi-Fi Module
	Additional Methods of Interacting with Bettercap
	Wrapping Up
Kismet Essentials	Installation

	Configuration Files
	Starting Kismet
	Web Interface
	Remote Capture
	Log Files
	Exporting Data
	Wrapping Up
Determining Chipsets and Drivers	Determining the Wireless Chipset
	Determining the Wireless Driver
	Example: Alfa AWUS036AC
Manual Network Connections	Connecting to an Access Point
	Setting up an Access Point