COURSE 2 OVERVIEW

CURRICULUM: Extreme Academy Course 2
CERTIFICATION LEVEL: Associate
CERTIFICATION FULL NAME: Extreme Networks Associate – Building Secure and Robust Wireless Networks
CERTIFICATION SHORT NAME: XNA - Building Secure and Robust Wireless Networks

DESCRIPTION
In this course you will learn about Wireless Networks and their importance to required business outcomes. You’ll be taking a deeper dive into the world of wireless, touch on subjects such as design best practices, standards, security and others with the goal of building robust wireless networks.

DURATION / TIMING
Course designed for 2 days of training or 12 hours. Timings are recommended; however, an Instructor may wish to spend more or less time on certain topics. The course can be delivered as a 2-day block or spread out over time.

SUGGESTED STUDENT VIEWING
Extreme Networks Associate - Introduction to Future Networking
<table>
<thead>
<tr>
<th>MODULES</th>
<th>MAIN TOPICS AND LEARNING OBJECTIVES</th>
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| MODULE 1. WHY WIRELESS? | - User experience. What does Wi-Fi mean to you?  
- Business outcomes: Productivity, Engagement & Governance  
- Use-cases examined by sector/vertical  
- Fundamental Concepts  
- Recap of Wi-Fi lessons from Course 1. |
| MODULE 2. HOW IT ALL WORKS (UNDER THE COVER) ... | - The RF Signal explained  
- Encoding and Modulation techniques  
- Multiplexing  
- Effects on RF Signals  
- Signal to Noise Ratio (SNR)  
- Antennas |
| MODULE 3. STANDARDS AND HOW DEVICES TALK TO EACH OTHER | - IEEE 802.11 Standards: a, b, g, n, ac  
- MAC Layer  
- PHY Layer  
- Wi-Fi 6 examined  
- The future (802.11be) |
| MODULE 4. DESIGN BEST PRACTICE | - Planning deployment  
- Work Breakdown Structure (WBS)  
- Defining requirements  
- 802.11ax (Wi-Fi 6) design considerations |
| MODULE 5. SECURITY | - How do we control who accesses my network and what they access? (NAC, Authentication and Guest Access, shadow IT)  
- How do we secure the data running across my network? (Encryption, WIPs) |
| MODULE 6. INSTALLATION AND TESTING | - Why would you want to do a site survey?  
- Common test tools  
- Site-survey ‘light’ overview  
- Installing and configuring |
| MODULE 7. MANAGEMENT ARCHITECTURE | - On premise  
- Cloud  
- SDN |
| MODULE 8. TO INFINITY AND BEYOND THE CONNECTION... | - Enhanced methods of using Wi-Fi: Beyond Connectivity  
- Wireless is the enabler and the power of data  
- Looking at use-cases by sector/vertical |
| MODULE 9. TOP CONSIDERATIONS WHEN SELECTING THE TECHNOLOGY... | - Top 5 generic considerations  
- Top 10 customer considerations |