



# ECSE Design Course Agenda

	Day 1	Day 2	Day 3	Day 4
9:00 - 10:30	<ul style="list-style-type: none"> <li>• Introductions</li> <li>• Ekahau Connect &amp; Product Family</li> <li>• 3 Steps to Great Wi-Fi</li> <li>• Wi-Fi Timeline</li> <li>• RF Fundamentals</li> </ul>	<ul style="list-style-type: none"> <li>• Step 1: A Great Network Starts with a Great Design</li> <li>• Group Exercise Review</li> <li>• Group Assignment</li> <li>• Ekahau AI Pro Design Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Outdoor Design</li> <li>• Step 2: Validate with Sidekick</li> <li>• Different Types of Wi-Fi Surveys</li> <li>• Types of Survey Data Collection</li> </ul>	<ul style="list-style-type: none"> <li>• Wi-Fi Troubleshooting Theory</li> <li>• Ekahau Capture</li> <li>• Ekahau AI Pro Reporting</li> </ul>
10:30 - 10:45	<b>Break</b>			
10:45 - 12:30	<ul style="list-style-type: none"> <li>• Modulations</li> <li>• Spread Spectrum</li> <li>• Wi-Fi Channels 2.4 GHz 5 GHz 6 GHz</li> </ul>	<ul style="list-style-type: none"> <li>• American Football Field</li> <li>• Small Office Design</li> <li>• University Dorm Rooms Design</li> </ul>	<ul style="list-style-type: none"> <li>• Passive vs. Active Wi-Fi Site Surveys</li> <li>• Ekahau's 6 Steps for Accurate Wi-Fi Site Surveys</li> <li>• Survey Exercise</li> </ul>	<ul style="list-style-type: none"> <li>• Tools you Need to Succeed as a Wi-Fi Engineer</li> <li>• Spectrum Analysis Theory</li> <li>• Spectrum Analysis Demo</li> </ul>
12:30 - 13:15	<b>Lunch</b>			
13:15 - 15:00	<ul style="list-style-type: none"> <li>• Inverse Square Law</li> <li>• Free Space Path Loss</li> <li>• dB Math</li> <li>• 802.11 Fundamentals</li> <li>• Association Process</li> </ul>	<ul style="list-style-type: none"> <li>• Antenna Fundamentals</li> <li>• Warehouse Design</li> <li>• Large Office Design - Coverage</li> <li>• Large Office Design - Capacity</li> </ul>	<ul style="list-style-type: none"> <li>• Ekahau Insights</li> <li>• Ekahau Auto Wall Calibration</li> <li>• Network Simulator</li> </ul>	<ul style="list-style-type: none"> <li>• ECSE Design Exam Review</li> <li>• ECSE Design Practical Exam</li> </ul>
15:00 - 15:15	<b>Break</b>			
15:15 - 17:00	<ul style="list-style-type: none"> <li>• Roaming in Wi-Fi</li> <li>• Channel Contention</li> <li>• Capacity Planning</li> <li>• Contention Process</li> <li>• Wi-Fi Security</li> <li>• Least Capable, Most Important Device</li> </ul>	<ul style="list-style-type: none"> <li>• 3D Building: Designing for Multiple Floors</li> <li>• Human vs. Machine: AI Auto-Planner</li> </ul>	<ul style="list-style-type: none"> <li>• Step 3 - Health Checks</li> <li>• Analyzing Survey Data</li> <li>• Troubleshooting Exercise 1 - Ekahau AI Pro</li> <li>• Troubleshooting Exercise 2 - Ekahau Survey App</li> </ul>	<ul style="list-style-type: none"> <li>• ECSE Design Multiple Choice Exam</li> </ul>