iBwave CERTIFICATION COURSE SYLLABUS

LEVEL 1: iBWAVE DESIGN ENTERPRISE NETWORK PLANNING

Note: Course syllabus is subject to change

LEARNING OBJECTIVES

At the end of this certification program, you will be able to:

- ✔ Model a building incorporating walls and surfaces composed of various materials
- ✔ Describe an in-building network project design process
- ✔ Design in-building projects using plans, systems and components
- ✔ Configure and generate reports

PRE-COURSE FUNDAMENTALS

(to be completed through the Learning Center)

- ✔ In-Building Project Review
- ✔ Project Deployment Process

INTRODUCTION TO iBWAVE DESIGN

- ✔ In-building design challenges
- ✔ iBwave Design features and benefits
- ✔ iBwave Design workspace

STARTING A PROJECT

- ✔ Best practices for creating a project in iBwave Design
- ✔ Definition of key project properties

BUILDING MODELING

- ✔ Importing walls
  - Importing walls using AutoCAD or image files
- ✔ Locking size and position
- ✔ Material legends and properties
- ✔ Drawing and editing walls
  - Drawing walls
  - Modifying and replacing walls
  - Changing wall properties
  - Simplifying walls
- ✔ Setting up horizontal surfaces
  - Creating horizontal surfaces
  - Creating holes in horizontal surfaces
  - Generating walls around or above horizontal surfaces
- ✔ Setting up inclined surfaces
  - Creating inclined surfaces
  - Generating walls around, above or at the end of inclined surfaces
  - Modeling cables along inclined surfaces
- ✔ Viewing a project in 3D

NETWORK DESIGN

- ✔ Starting a project
  - Best practices: how to start a project
  - Key project properties
- ✔ Modeling a building
  - Set up page layouts
  - Create, import, scale and duplicate floor plans
  - Set reference point
  - Setup building configuration: order of floors, assignment of ground floor, building properties
- ✔ Components used in in-building networks
  - Types of components: system sources, antennas, splitters/combiners, fiber parts, cables
  - Subparts, component groups, preferred parts
- ✔ Designing in-building networks
  - Position components
  - Define cable routes
  - Add systems
  - Change floor or component heights
  - Replace or clone components
  - Search for and find components
  - Assign components to floor plans
- ✔ Design plan and other plan features
  - Setup design plan organizer
  - Display siblings
  - Align vias
  - Automation: parts placement, splitter balancing and cable replacement
  - Antenna contours
  - Debug message list
  - Adjust labels
- ✔ Other useful settings
  - Project properties: error/warnings, calculations, preferences
  - Utilities
  - Options and default settings

REPORTS

- ✔ Preparing for reports - graphical elements and page setup
  - Add text boxes, legends, and annotations
  - Modify images with image tools (crop, rotate, flip, etc.)
  - Adjust page setup and border
- ✔ Generating Reports
  - Report types: equipment list, link budget, antennas, etc.
  - Set report options, print and export
  - Customizing reports

DESIGN VALIDATION

- ✔ Common mistakes and pitfalls in designing
  - Floor plan - incorrect order or missing floors
  - Location of reference point on floors
  - Verifying the debug message list
  - Replacing cables after project clean-up
  - Unbalanced power distribution
  - Cable connectors

DESIGN FROM SCRATCH WORKSHOP

- ✔ Creating a new project: set up project properties and add floors
- ✔ Designing a network: add systems and components according to specifications
- ✔ Cleaning up the design: use design plan organizer and automation tool to clean up the design and balance the network output power

FINAL EXAM

(3 hours)