



CTS-D Prep (Virtual Classroom)

Week 1:

Communicating Design Intent

- AV Design Phases
- Architectural Vocabulary
- Conducting a Needs Analysis
- AV Design Package
- Using a Scale Ruler
- Creating a Program Report
- Reading Architectural Drawings
- Architectural Details

Ergonomics

- Defining Ergonomics
- Human Dimensions
- Furniture Considerations
- Sightline Studies

Visual Principles

- Defining Display Image Size Terms
- Using Analytical and Basic Decision Making
- Using the Web App to Calculate Display Image Size
- Implementing Element Height and Text Size
- Calculating Analytical and Basic Decision Making
- Conforming to DISCAS

The AV Design and Integration Process Assessment Ergonomics Assessment

Display Image Size

CTS-D Practice Questions 1



Week 2:

Display Selection

- Display Sources
- Aspect Ratio
- Display Types
- Front Projection Design
- Rear Projection Design
- Video Wall Design

Display Environment

- Measuring Light
- Measuring Projector Brightness
- System Black
- Contrast Ratio
- Predicting Projector Brightness
- Task Light Levels

Audio Principles

- The Decibel
- Additional 10Log and 20Log Exercises
- Sound Pressure Level
- Loudspeaker Coverage Patterns
- Ohm's Law Refresher
- Impedance
- Specify a Power Amplifier (EPR)
- Audio System Quality
- PAG-NAG

Display Selection Assessment

Display Environment Assessment

Electrical Considerations

- Power and Grounding

Acoustical Criteria

- Background Noise
- Conservation of Energy
- Reflection
- Reverberation
- Room Modes
- Absorption
- Transmission



Elements of Acoustics Assessment

Lighting

Lighting Technology

Structural/Mechanical Considerations

Consider This
Codes and Access Issues
Mounting
Designing the Rack
HVAC Issues
Energy Management
Conduit Capacity and Jam Ratio

Audio Principles Assessment CTS-D Practice Questions 2

Week 3:

Digital Signals

Analog vs. Digital Signals
Digital Signals

Digital Design Considerations

Audio Transport Methods
Video Signal Types
Cable Types
Digital Video Formats
Digital Rights Management

Acoustics Assessment Jam Ratio and Cable Planning Assessment

Networking

Networking Videos

Streaming

Streaming Needs and Tasks
Streaming and the Network Environment
Streaming Delivery and Protocols
Unicast and Multicast



Security

- IT Security for AV Applications
- Identify Security Requirements
- Risk Registers
- Mitigation Plans

Digital Design Considerations Assessment CTS-D Practice Questions 3

Week 4:

Analog Video Bandwidth

- Video Signal Bandwidth
- Video System Bandwidth

System Closeout

- Reviewing Deliverables
- Customer Training
- Ongoing Maintenance
- Troubleshooting

Networking Assessment Analog Bandwidth Calculations Assessment CTS-D Practice Questions 4 CTS-D Practice Exam