1. Basic Infrared Theory
   - Heat transfer
   - Electromagnetic spectrum
   - Emittance, reflectance, and transmittance
   - Atmospheric transmission
   - IR wavebands, imaging systems, and lens materials

2. Infrared Equipment
   - Selection criteria
   - Range and level settings
   - Image and data recording
   - Self-directed learning activities for hands-on use

3. Infrared Building Inspections
   - Theory and component construction
   - Insulation and material characteristics
   - Inspection techniques
     - interior / exterior
   - Weather variables and influences
   - Required site conditions
     - creating sufficient Delta T
   - Thermal signatures
     - missing & damaged insulation
     - air leakage
     - latent moisture
     - pest damage
   - Mold detection
   - Inspection of building subsystems
   - Other tools
   - Verification of data
   - Data recording
   - Standards for inspections
4. Infrared Roof Inspections

• Theory and component construction
• Insulation and material characteristics
• Inspection techniques
  – ground based / aerial
• Weather variables and influences
• Required site conditions
• Safety practices
• Thermal signatures of latent moisture
• Verification of data
• Data recording
• Alternate methods of moisture detection
• Standards for inspections

5. Infrared Electrical System Inspections

• Theory and thermal signatures of problems
• Seven types of detectable defects
• Conducting an inspection
• Safety practices
• Confirming exceptions
• Data recording
• Standards for inspections

6. Marketing

• How to start / expand an IR consulting business
• Identifying potential markets
• Advertising your services
• Locating qualified prospects
• Attracting repeat business
• Establishing fee structures