

RIA Fire Loss Specialist Course Overview



- **Chapter 1: Introduction and Psychology and Ethics of Fire Restoration**
 - What is restoration
 - Basic restoration and objectives
 - Historical Restoration
 - Art Restoration
 - Insurance Restoration
 - New York Fire Policy
 - HO-1
 - Early Restoration
 - Combustion
 - Wet v. Dry Smoke
 - Thermal Mass and Spalling
 - Residues
 - Smoke Toxicity and Behavior
 - Morals, Ethics and Professional Responsibility

- **Chapter 2: Discovery and Emergency Response Management**
 - Mitigation, Preparedness, Recovery, Response
 - Fire Department Investigation
 - Site Stabilization
 - OSHA competent Person
 - Secondary Damage
 - Scope of Work
 - OSHA, Federal Law, Standards (IICRC, NADCA, IESO, etc.)
 - Mitigation
 - Dry smoke
 - Emergency Clean Situations

- **Chapter 3: Scoping and Estimating**
 - The Estimating Process
 - Detailed Damage Assessment (Scope of Work)
 - Consideration

- Estimating Model
 - Change Orders, etc.
 - Site Inspection
 - Best Practices of Scoping
 - Third Party Services
 - MIP's
 - Retail Labor Rates
 - Labor rates, burdens, overhead, profit, economies of scale
 - Materials
 - Billing Method
 - Cost plus
 - Time and Material
 - Square foot
 - Bid
 - Unit pricing
 - Receipts
- **Chapter 4: Pre-Structural Restoration Phase Management and Contracts**
 - Materially Interested Parties (MIP)
 - Owner
 - Insurer
 - Contractor
 - Mortgage Company
 - Primary MIPs
 - Contractor
 - Customer
 - Contract
 - Scope of Work
 - Price
 - Terms and Conditions
 - Draw Schedule
 - Change Order provisions
 - LEED
 - Government Regulators and Inspectors
 - EPA
 - OSHA
 - HUD
 - AQMD
 - USFS
 - NPS
 - Communication

- Bonds
 - Surety Bond
 - Bid Bond
 - Performance Bond
 - Payment Bond
- Emergency Services Contract
- Liability
- Change Orders

- **Chapter 5: Standard Project Management**

- What is project management
- Communication and Setting Expectations
- Scheduling
- Resource Management
- Material Procurement
- Budgeting & Cost Planning
- Risk Management
- Project Administration
- Quality Control
- Project Lifecycle
- Initiation Phase
- Planning Phase
- Execution
- Controlling
- Closure Phase

- **Chapter 6: Odor Removal and Abatement (Mitigation)**

- Odor Identifications
 - Natural Substance Fire
 - Synthetic Substance Fire
 - Protein Fire
- Season Weather & Odor
- 2 Step Smoke Odor Removal
- Inspection of Site
- 4 Steps of Odor Control
- 4 Types of Cleaning Actions
- 4 Steps of Fire Remediation
- When cleaning and painting is appropriate
- Restore vs. Replace
- Gas Phase Oxidizing Deodorization
- Ethics & Integrity

- Odor Balance
- Early Odor Removal
- New Thinking Odor Balance
- Pre-deodorization
- Deodorizations via Subtraction
- Odors and Psychology
- Cleaning Action – Chemical Action
- Sealants
- Permeance

- **Chapter 7: Impact of Heat and Smoke on the Built Environment**

- Statistics
- Fire Science
 - Flaming vs non-flaming (tetrahedron vs. triangle)
 - Smoke
- Pyrolysis
- Thermal Transfer Mechanisms
 - Convection
 - Conduction
 - Radiation
- “Heat Lines”
 - Thermal Stratification / Thermal Layering
 - Radiant heat
- Fire Progressions
 - Four States of Fire Development
 - Fuel Types
- Positive Pressure Ventilation
- Gypsum and Construction
 - Chemistry
 - Construction Classifications
 - Balloon Framing

- **Chapter 8: Impact of Heat and Smoke on Special Systems**

- History of Building
- Safety
 - PPE
 - MaxAir CAPR
- Residential HVAC
 - Forced Air Systems or Radiant
 - Air Conditioning Systems
- HVAC Component Investigation/Testing
- Plumbing Systems
 - Supply systems (Copper, CPVC, PEX)

- Drain/waste systems (PVC, COPPER, etc.)
- Wet cleaning of plumbing
- Electrical Systems
 - Power Surge, Outlet, Meter Service, Code upgrade

Chapter 9: The Impact of Heat and Smoke on Finishes, Millwork and Flooring Materials

Treatments to Mitigate Corrosion

- Moisture Control
- Surface Treatments

Restorative cleaning methods and actions

- Cleaning Methodology
- Source Removal Protocol
- Media Blasting
- Laser Cleaning

Controlled Removal of non-restorable surfaces and finishes

- Investigative Demolition
- Sequencing of Restoration Services

• Chapter 10: Fire Restoration with Unique Circumstances

- Historical buildings
 - Historical sites
 - Structures
 - Objects
 - Districts
- What makes a property historic
- Historic building pitfalls
- Maintain LEED credentials on buildings
- Four levels of LEED
- Working with LEED / Historic Authorities
- Healthcare and ICRA Protocols
 - HIPAA
 - HAIs
 - Bio-load
 - ICRA
 - Dust control
 - ILSM
 - Medical Gas
- Healthcare Facilities Construction Type
- Lightning
- Industrial
- Waste