



Common Contractor Concerns

3 hours energy/code, 1 hour business management, 3 hours non-code

Course Objectives & Outline

Course Description:

This 7-hour course looks at three important issues contractors face: moisture intrusion, energy efficiency, and business advertising standards.

That Dangerous Damp: Dealing with Water Inside considers the question of what to do once water has found its way inside the building, addressing sealing a failed envelope, assessment of moisture damage, determining and prioritizing the steps required in the repair or replacement of damaged components, and eliminating any remaining moisture driving the growth of mold.

Designing for Energy Efficiency encourages and examines the impact of decisions and methods to improve residential energy efficiency, whether post completion or during the design process.

Business Practices: Truth in Advertising breaks down truth-in-advertising standards, emphasizing the importance of complying with rules that regulate advertising as well as providing resources if additional assistance is needed to meet the FTC's requirements.

Course Objectives:

By the end of *That Dangerous Damp: Dealing with Water Inside*, learners will:

1. Differentiate between terms pertaining to dampness and mold
2. Recognize the connection between moisture and mold growth, the damage that can be caused by both, and mold prevention strategies
3. Identify basic design and construction systems for effectively controlling moisture infiltration into built environments, as well as best maintenance and weatherproofing practices
4. Recall ways to inventory and respond to building damage from moisture
5. Be familiar with indoor air quality issues, procedures for dealing with mold in the air stream, and other possible pollutants in the air stream

By the end of *Designing for Energy Efficiency*, learners will:

1. Distinguish between motivation factors pertaining to energy efficiency
2. Recognize considerations, and steps that can be taken after structures are completed, to reduce the use of energy

- Identify considerations, and steps that can be taken during the design process, to reduce the use of energy

By the end of *Business Practices: Truth in Advertising*, learners will:

- Recall truth-in-advertising rules and requirements, as well as penalties that may be imposed and tactics that may be used in response to violation
- Differentiate between other aspects of advertising
- Identify sources of additional guidance provided by the FTC

Course Outline:

Unit	Time (Minutes)
Course Orientation	1.85
Acknowledgement of Orientation	0.00
THAT DANGEROUS DAMP: DEALING WITH WATER INSIDE	0.00
1. Introduction & Overview of Moisture Related Problems a. Don't Let the Water In b. Glossary of Terms Regarding Dampness and Mold	11.71
2. The Scope of the Problem a. Moisture Damage to Buildings b. Monetary Loss Due to Moisture Problems c. General Mold / Moisture Intrusion d. The Mold / Moisture Connection e. Definition of Mold f. Controlling Mold Growth by Controlling Moisture	11.34
3. Before Building Damage Occurs a. Use of Rain Screens b. Necessary Ventilation c. Improving Air Quality and Ventilation d. Addressing Moisture Problems in Various Building Systems e. Maintaining Site Drainage	12.26
<i>Review: Flashcards 1</i>	5.00
<i>Review: Matching 1</i>	10.00
<i>Assessment 1</i>	5.00
3. Before Building Damage Occurs (cont) f. Maintaining Foundations g. Maintaining Walls h. Maintaining Roofing and Ceilings i. Maintaining Plumbing Systems j. Maintaining HVAC Systems k. Making Your Home Weathertight	15.98

4. Dealing with Building Damage from Moisture a. Testing and Remediation of Dampness and Mold b. Testing for Contaminants c. Inventory Damaged Materials d. Inventory and Response to Ceiling Damage e. Inventory and Response to Drywall / Plaster Damage f. Inventory and Response to Carpet Damage g. Inventory and Response to Electric Systems Damage h. Inventory and Response to Furniture Damage i. Inventory and Response to Paper / Records Damage j. Specific Instructions for Specific Materials	15.01
5. Air Quality Concerns a. Levels of Indoor Air Pollution	2.75
<i>Review: Flashcards 2</i>	5.00
<i>Review: Matching 2</i>	10.00
<i>Assessment 2</i>	5.00
5. Air Quality Concerns (cont) b. Identifying Air Quality Issues c. Concerns about Air Quality d. Health Issues Related to Indoor Air Quality e. Health Concerns with Dampness f. Changes in Indoor Air Quality Attributable to Mold g. Air Quality in Schools	11.11
6. What to do before Mold Occurs a. Below Grade Space & General Building Condition b. Maintaining Doors and Windows & HVAC Systems	3.43
7. Dealing with Mold in the Air Stream a. Reiteration of Basic Facts b. Controlling the Growth of Mold c. General Prevention Strategy d. Procedures Before and After 48 Hours e. Cleaning Up Mold	9.04
8. Dealing with Other Pollutants in the Air Stream a. Cleaning Up Air in General b. Measuring Levels of Radon c. Dealing with Radon d. Health Effects of Radon e. Reducing Home Exposure to Radon f. Built-in Radon Resistance	9.01
9. Summary	2.49
<i>Review: Flashcards 3</i>	5.00
<i>Review: Matching 3</i>	10.00
<i>Assessment 3</i>	5.00

DESIGNING FOR ENERGY EFFICIENCY	0.00
1. Introduction & Some Motivation Factors a. Energy Codes b. Other Motivators	3.57
2. General Building Energy Concerns a. Roof and Wall Considerations b. Cool Roofs c. Making Roof Types Cool d. Avoiding Thermal Bridging e. Using Reflective Surfaces f. Use of Vapor Barriers and Their Location g. Roof to Ceiling Considerations h. Venting Roofs to Control Energy Loss i. Insulation Systems j. Insulation Options k. Air Infiltration l. Making New Homes Airtight m. Passive and Active Fresh Air n. Radon – Not Just Hype	29.84
<i>Review: Flashcards 4</i>	5.00
<i>Review: Matching 4</i>	10.00
<i>Assessment 4</i>	5.00
2. General Building Energy Concerns (cont) o. Return to Radon p. Positive and Negative Pressure q. Plugging the Holes r. Window Frame Types s. Window Glass Types and Coatings t. Window Operating Types u. Storm Windows v. Energy-Efficient Skylights w. Energy-Efficient Doors	14.92

3. Efficiency by Design	
a. Passive Energy-Efficient Design	
b. Using Site Features to Advantage	
c. Passive Design for Site Considerations	
d. Landscaping for Climate	
e. Landscaping for Shade	
f. Landscaping Windbreaks	
g. Water Conservation and Landscaping	
h. Passive Design Considerations for Sunlight	
i. Lighting versus Fenestration	
j. Compass Orientation	
k. Mind the Wind	
l. Energy Transfer from the Ground	
m. Earth Tubes	19.18
<i>Review: Flashcards 5</i>	5.00
<i>Review: Matching 5</i>	10.00
<i>Assessment 5</i>	5.00
3. Efficiency by Design (cont)	
n. Berms and Buried Houses	
o. Additional Considerations for Earth Sheltered Homes	
p. Options for HVAC Systems	
q. Life Cycle versus Initial Cost	
r. Pros and Cons of HVAC Choices	
s. Pros and Cons of Creating Zones	
t. Options for Lighting	
u. Energy-Efficient Lamp Technologies	
v. Active Renewable Energy Technologies	
w. Design Features of Energy-Efficient Houses	
x. Cutting Edge Ideas to Achieve Efficiency	
y. Proven Ideas with Low Cost to Implement	
z. Proven Ideas with Higher Cost to Implement	
aa. Investing in Efficiency	
bb. Buying and Making Electricity	
cc. Net Zero	
dd. Older Efficiency Technologies	33.37
4. Summary	1.08
<i>Review: Flashcards 6</i>	5.00
<i>Review: Matching 6</i>	10.00
<i>Assessment 6</i>	5.00
BUSINESS PRACTICES: TRUTH IN ADVERTISING	0.00
Introduction	0.44
1. Truth-in-Advertising Standards	6.22
<i>Review: Flashcards 7</i>	3.00
2. Other Advertising Issues	9.63

<i>Review: Flashcards 8</i>	7.00
<i>Review: Matching 7</i>	20.00
<i>Assessment 7</i>	5.00
TOTAL	379.17