**Utah Plumbers 12 Hour CE**

**Objectives: Students will study parts of Utah 2021 IPC as well as industry related topics.**

**Module 1: Utah 2021 IPC Ch 1**

Section 101 General

Section 102 Applicability

Part 2 Administration and Enforcement

Section 103 Department of Plumbing Inspection

Section 104 Duties and Powers of the Code Official

Section 105 Approval

Section 106 Permits

Section 107 Inspections and Testing

Section 108 Violations

Section 109 Means of Appeal

Section 110 Temporary Equipment, Systems and Uses

**Module 2: Utah 2021 IPC Ch 2 Outline**

 Section 201 General

 201.1 Scope

 201.2 Interchangeability

 201.3 Terms Defined in Other Codes

 201.4 Terms Not Defined

 Section 202 General Definitions

**Module 3: Utah 2021 IPC Ch 3 Outline**

Section 301 General

Section 302 Exclusion of Materials Detrimental to the Sewer System

Section 303 Materials

Section 304 Rodentproofing

Section 305 Protection of Pipes and Plumbing System Components

Section 306 Trenching, Excavation and Backfill

307.1 General

Section 308 Piping Support

Section 309 Flood Hazard Resistance

Section 310 Washroom and Toilet Room Requirements

311.1 General

Section 312 Tests and Inspections

Section 313 Equipment Efficiencies

Section 314 Condensate Disposal

Section 315 Penetrations

Section 316 Alternative Engineered Design

**Module 4: Utah 2021 IPC Ch 4-5 Outline**

Section 401 General

Section 402 Fixture Materials

Section 403 Minimum Plumbing Facilities

Section 404 Accessible Plumbing Facilities

Section 405 Installation of Fixtures

Section 406 Automatic Clothes Washers

Section 407 Bathtubs

Section 408 Bidets

Section 409 Dishwashing Machines

Section 410 Drinking Fountains

Section 411 Emergency Showers and Eyewash Stations

412 Faucets and Fixture Fittings

Section 413 Floor and Trench Drains

Section 414 Floor Sinks

Section 416 Food Waste Disposer Units

Section 417 Garbage Can Washers

Section 418 Laundry Trays

Section 419 Lavatories

Section 420 Manual Food and Beverage Dispensing Equipment

Section 421 Showers

Section 422 Sinks

Section 425 Water Closets

Section 426 Whirlpool Bathtubs

Chapter 5 Water Heaters

Section 501 General

Section 502 Installation

Section 503 Connections

Section 504 Safety Devices

Section 505 Insulation

**Module 5: Utah 2021 IPC Ch 6A Outline**

**Chapter 6 Water Supply and Distribution Sect 601.1 – 605**

Section 601 General

Section 602 Water Required

Section 603 Water Service

Section 604 Design of Building Water Distribution System

Section 605 Materials, Joints and Connections

**Module 6: Utah 2021 IPC Ch 6B Outline**

**Chapter 6 Water Supply and Distribution Sect 606 – 613**

Section 606 Installation of the Building Water Distribution System

Section 607 Hot Water Supply System

Section 608 Protection of Potable Water Supply

Section 609 Health Care Plumbing

Section 610 Disinfection of Potable Water System

Section 611 Drinking Water Treatment Units

Section 612 Solar Systems

Section 613 Temperature Control Devices and Valves

**Module 7: Utah 2021 IPC Ch 7 Outline**

**Chapter 7 Sanitary Drainage**

Section 701 General

Section 702 Materials

Section 703 Building Sewer

Section 704 Drainage Piping Installation

Section 705 Joints

Section 706 Connections Between Drainage Piping and Fittings

Section 707 Prohibited Joints and Connections

Section 708 Cleanouts

Section 709 Fixture Units

Section 710 Drainage System Sizing

Section 711 Offsets in Drainage Piping in Buildings of Five Stories or More

Section 712 Sumps and Ejectors

Section 713 Computerized Drainage Design

Section 714 Backwater Valves

Section 715 Vacuum Drainage Systems

Section 716 Replacement of Underground Building Sewers and Building Drains by Pipe-Bursting Methods

**Module 8: Utah 2021 IPC Ch 8-9 Outline**

Chapter 8 Indirect/Special Waste

Section 801 General

Section 802 Indirect Wastes

Section 803 Special Wastes

**Chapter 9 Vents**

Section 901 General

Section 902 Materials

Section 903 Vent Terminals

Section 904 Outdoor Vent Extensions

Section 905 Vent Connections and Grades

Section 906 Vent Pipe Sizing

Section 907 Vents for Stack Offsets

Section 908 Relief Vents—Stacks of More Than 10 Branch Intervals

Section 909 Fixture Vents

Section 910 Individual Vent

Section 911 Common Vent

Section 912 Wet Venting

Section 913 Waste Stack Vent

Section 914 Circuit Venting

Section 915 Combination Waste and Vent System

Section 916 Island Fixture Venting

Section 917 Single-Stack Vent System

Section 918 Air Admittance Valves

Section 919 Engineered Vent Systems

Section 920 Computerized Vent Design

**Module 9: Time Management and Productivity**

**1 Hour**

I. Core Skills and Self-Management

1. Introduction of core skills and self-management
2. Overview of time management, organization, and productivity for contractors
3. Importance of these skills in the contracting industry

II. Time Management

1. Establishing priorities and attainable goals
2. Developing a daily routine and productive workflow
3. Using tools like to-do lists to manage time more effectively
4. Evaluating progress regularly and adjusting workflow as needed

III. Organization

1. Organizing workspace
2. Optimizing storage and keeping frequently used items within reach
3. Using labels and color-coding to quickly identify and locate items
4. Minimizing distractions and planning for flexibility

IV. Productivity

1. Avoiding procrastination and prioritizing tasks based on urgency and importance
2. Breaking down larger goals into smaller tasks to make them more manageable
3. Using a variety of communication channels and practicing active listening
4. Encouraging open communication and respecting diverse perspectives

V. Importance of Collaboration

1. Establishing clear roles and responsibilities
2. Using project management software to stay organized and communicate efficiently
3. Encouraging open communication and creating a safe space for team members to share ideas and feedback
4. Setting realistic deadlines and collaborating on problem-solving

VI. Building Trust

1. Being reliable and meeting deadlines
2. Communicating effectively and being transparent
3. Providing quality work that meets or exceeds clients' expectations
4. Maintaining professionalism and respecting diverse perspectives

VII. Conclusion

1. Recap of the importance of time management, organization, productivity, collaboration, and building trust for contractors
2. Implications for the contracting industry

**Module 10: Health and Safety Issues for Plumbers**

**1 Hour**

1. Lead Hazards
	1. Other Names
	2. Emergency Overview
	3. Main Routes of Exposure
	4. First Aid for Lead
	5. Personal Protective Equipment Needed When Working with Lead
	6. General Hygiene Considerations
2. Sulphur Dioxide
	1. Other Names
	2. Emergency Overview
	3. Main Routes of Exposure
	4. First Aid for Sulphur Dioxide
	5. Stability and Re-Activity Hazards of Sulphur Dioxide
	6. Accidental Release Measures for Sulphur Dioxide
	7. Handling and Release Practices for Sulphur Dioxide
	8. Personal Protective Equipment Needed When Working with Sulphur Dioxide
3. Asbestos
	1. Other Names
	2. Main Use
	3. Emergency Overview
	4. Main Routes of Exposure
	5. First Aid Measures for Asbestos
	6. Methods for Containment and Clean-up
	7. Handling and Storage Methods for Asbestos
	8. Personal Protective Equipment Needed When Working with Asbestos
4. Mold
	1. Overview
	2. Common Types of Mold
	3. Health Issues Related to Mold
	4. How to Prevent Mold Contamination
	5. What to Look For
	6. Mold Clean-up
	7. Precautions
5. Hazards Related to Rodent and Bird Droppings
	1. Histoplasmosis
		1. Symptoms
	2. Psittacosis
		1. Symptoms
	3. Hantavirus
6. Flood Clean-Up
	1. Personal Protective Equipment for Flood Cleanup
	2. Hazards Related to Flood Cleanup
7. Keeping a Lone Worker Safe
	1. Issues Related to Working Alone
	2. Procedures for Checking In
	3. Assessing the Workplace Situation

**Module 11: Rainwater Harvesting Course Outline**

**1 Hour**

I. Introduction

A. What is rainwater harvesting?

B. Importance of rainwater harvesting

C. Benefits of rainwater harvesting

II. Types of Rainwater Harvesting Systems

A. Surface runoff harvesting

B. Roof runoff harvesting

C. Subsurface flow harvesting

D. At-source harvesting

E. Hybrid System

III. Planning and Design

A. Site assessment

B. System sizing

C. Components of a rainwater harvesting system

IV. Installation and Maintenance

A. Plumbing considerations

B. Filtration and disinfection

C. Maintenance and troubleshooting

V. Regulations and Codes

A. Local building codes

B. Permitting requirements

C. Compliance with health and safety standards

VI. Conclusion

A. Summary of key points

B. Future potential for rainwater harvesting

**Module 12: Hot Work for Plumbers and Contractors**

**1 Hour**

1. Hot Work in Plumbing and Construction
	1. What is Hot Work and Its Purpose?
	2. Importance of Safety in Hot Work
2. Types of Hot Work
	1. Welding and Brazing
		1. Equipment and Tools
		2. Common Applications
	2. Cutting and Grinding
		1. Equipment and Tools
		2. Common Applications
	3. Soldering
		1. Equipment and Tools
		2. Common Applications
3. Safety Precautions in Hot Work
	1. Personal Protective Equipment (PPE)
		1. Welding Helmets and Face Shields
		2. Fire-Resistant Clothing
		3. Gloves and Boots
	2. Ventilation and Gas Detection
	3. Specific Examples of Hot Work Safety Procedures
4. Fire Safety in Hot Work
	1. Fire Hazards Associated with Hot Work
		1. Sparks and Embers
		2. Flammable Materials
	2. Fire Prevention Measures
		1. Fire Extinguishers
		2. Hot Work Permits
		3. Clearing Work Area
		4. Fire-Resistant Barriers
	3. Fire Suppression Systems
		1. Fire Blankets
		2. Automatic Sprinkler Systems
5. Hot Work Procedures
	1. Planning and Assessment
		1. Identifying Risks
		2. Selecting Appropriate Techniques
	2. Preparing the Work Area
		1. Removing Flammable Materials
		2. Setting Up Fire-Resistant Screens
	3. Executing Hot Work Safely
		1. Following Standard Operating Procedures
		2. Monitoring the Work
	4. Post-Work Inspection and Cleanup
		1. Ensuring No Lingering Fire Hazards
		2. Storing Equipment Safely
6. Residential and Commercial Case Studies and Examples of Hot Work Accidents
	1. Lessons Learned from Real Incidents
	2. Analysis of Root Causes
	3. How Proper Safety Measures Could Have Prevented Accidents
7. Regulatory and Compliance Considerations
	1. Occupational Safety and Health Administration (OSHA) Standards
	2. Local and State Regulations
	3. Compliance Audits and Inspections
8. Conclusion
	1. Recap the Importance of Hot Work Safety for Plumbers and Contractors