Suggested Related Instruction Outline

COURSE CODE	COURSE NAME	CONTACT HOURS	CREDIT HOURS	OUTCOME
NCCER	**5th Edition Plumbing Level 1 (222.5 hours)**			
Year 1	NCCER CORE	77.5		
	Introduction to the Plumbing Trade	5		
	Plumbing Safety	22.5		
	Tools of the Plumbing Trade	10		
	Introduction to Plumbing Math	12.5		
	Introduction to Plumbing Drawings	17.5		
	Plastic Pipe and Fittings	12.5		
	Copper Tube and Fittings	12.5		
	Cast Iron Pipe and Fittings	12.5		
	Steel Pipe and Fittings	12.5		
	Introduction to Plumbing Fixtures	7.5		
	Introduction to Drain, Waste, and Vent (DWV) Systems	10		
	Introduction to Water Distribution Systems	10		
NCCER	**5th Edition Plumbing Level 2 (175 hours)**			
Year 2	Plumbing Math Two	15		
	Reading Commercial Drawings	25		
	Structural Penetrations, Insulation, and Fire-Stopping	15		
	Installing and Testing DWV Piping	30		
	Installing Roof, Floor, and Area Drains	5		
	Installing and Testing Water Supply Piping	20		
	Types of Valves	5		
	Installing Fixtures and Valves	20		
	Installing Water Heaters	10		
	Basic Electricity	10		
	Fuel Gas and Fuel Oil Systems	20		

NCCER	**5th Edition Plumbing Level 3 (157.5 hours)**			
Year 3	Applied Math	15		
	Service Plumbing	27.5		
	Sizing and Protecting the Water Supply System	30		
	Potable Water Supply Treatment	15		
	Types of Venting	20		
	Sizing DWV and Storm Systems	20		
	Sewage Pumps and Sump Pumps	12.5		
	Corrosive-Resistant Waste Piping	7.5		
	Compressed Air	10		
NCCER	**5th Edition Plumbing Level 4 (147.5 hours)**			
Year 4	Business Principles for Plumbers	15		
	Introduction to Leadership	22.5		
	Water Pressure Booster and Recirculation Systems	12.5		
	Indirect and special Waste	17.5		
	Hydronic and Solar Heating Systems	17.5		
	Codes	12.5		
	Private Water Supply Well Systems	10		
	Private Waste-Disposal Systems	10		
	Swimming Pools and Hot Tubs	7.5		
	Plumbing for Mobile Homes and Travel Trailer Parks	7.5		
	Introduction to Medical Gas and Vacuum Systems	15		
	Total	**702.5**	**n/a**	**702.5 HOURS RTI**