

## Heat Pump Water Heater Course Requirements

The following topic areas and key concept knowledge areas outline the technical content that is used to evaluate training programs that submit for recognition. These technical areas cover typical requirements for heat pump water heater installers, aligning with DOE’s Building Science Education materials.

Topic Area	Key Concept Knowledge Area ( <b>Bold</b> items are required)	Possible Points
Introduction to Heat Pump Water Heaters	How a heat pump heats water	5
	Role of the major components of a HPWH	5
	Common modes of operation for HPWH	4
	<b>Consumer expectations of HPWHs compared to conventional water heaters</b>	Required
	Switching from gas vs. switching from electric	6
	Explain how energy efficiency is determined (Uniform Energy Factor)	3
	Calculate yearly operational cost estimates	10
Decision Guidance	Determine household hot water usage and needs	10
	<b>Determine appropriate HPWH size</b>	Required
	Explanation on how to read Energy Guide Labels	2
	Applications for different HPWH models	3
	HPWHs in different climates	5
	<b>Special requirements for HPWHs: siting, plumbing, and electrical</b>	5
	<b>How to perform necessary upgrades and modifications to meet siting, plumbing, and electrical requirements for HPWHs</b>	Required
Installation	Searching and acquiring necessary permits if applicable	4
	<b>Determine ideal location that meets HPWH requirements</b>	5
	<b>Address condensate piping and draining</b>	5
	Detailed instructions on proper installations	10
	<b>Determining and troubleshooting common issues</b>	Required
Smart controls	Benefits of smart controls and utility integration	4
	How to use smart utility integration (CTA-2045)	4
HPWH Business Development	<b>Cost-saving benefits of HPWH for consumers</b>	Required
	<b>Understand the climate impacts of installing a HPWH</b>	Required
	Seller benefits of HPWH	5
	Other, non-financial benefits of HPWH	5