

# 2399 The Fast Track Route to MCS Certification | City & Guilds



## Training & Assessment on Air Source & Ground Source Heat Pumps

**City & Guilds 2399-31 & 2399-32**

Environmental Technology Qualification in  
Installation and Maintenance (non Refrigerant Circuits)

**at the HRP Technical Centre in Slough**



[www.hrponline.co.uk](http://www.hrponline.co.uk)

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more information  
and course  
bookings**

# 2399 The Fast Track Route to MCS Certification



## 2399 Environmental Technologies Awareness Course

### Who is the course for?

This course is for Non Technical staff or those who want to gain a better understanding of small scale environmental technologies

It is also a prerequisite for those who want to progress on to other full Level 3 Qualifications in Environmental Technologies.

### Qualification Achieved

2399 Environmental Technologies Awareness Course

### What Will I learn on this Course?

The course covers:

- Fundamental working principles of micro-renewable energy and water conservation technologies
- Fundamental requirements of building location/features for the potential to install micro-renewable energy and water conservation systems to exist
- Fundamental regulatory requirements in relation to micro-renewable energy and water conservation technologies
- The typical advantages and disadvantages that are associated with micro-renewable energy and water conservation technologies

## Level 3 Award in the Installation of Heat Pump Systems and the requirements to inspect, service and maintain heat pump system installations (Non-refrigerant Circuits) 2399-31 & 2399-32

### Who is the course for?

This course is for existing NVQ level 2, 3 (or equivalent) Plumbing/H&V, Gas installation Engineers with certification in Water Regulations and Energy Efficiency for Domestic Heating.

### Qualification Achieved

City & Guilds 2399-31 Level 3 Award in the installation of Heat Pumps Systems (Non refrigeration Circuits)

### What Will I learn on this Course?

The course covers:

- Health and Safety Risks and safe systems of work associated with Heat Pump system installation work
- (Non Refrigeration Circuit)
- Relevant Standards/regulations relating to practical installation, testing and commissioning activities
- The operational characteristics and purpose of the components within a heat pump
- The differences between heat pump units and system arrangements for hydraulic emitter circuits
- The basic principles of heat pump selection and design that are common to both air and ground source heat pump systems
- The basic design principles of Ground Source "Closed Loop" heat pump collector circuit, component sizing and installation
- The layouts of "Open Loop" water filled heat pump collector circuits
- Planning and preparatory work required for the installation of heat pumps
- The requirements to install and testing
- Gain an understanding of the requirements for the Commissioning of Heat pumps system installations
- Gain an understanding of the requirements for the Handover of Heat Pump systems renewable energy and water conservation technologies



Delivered by HRP's leading industry instructors through high-tech mobile training rigs

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