

What are Skills bootcamps?

Government-Funded Training

60-hour accredited Level 2/3 training to help master low-carbon technologies.

Who is it for?

Experienced installers working with traditional heating systems who want to expand into renewables.

What you gain?

Practical knowledge in Low-Temperature Heating and Part L compliance, equipping you to install, service, and warranty modern Heat Pump Systems.



COURSE OVERVIEW

Day 1

Low Temperature Heating and Hot Water Systems in Dwellings

- R values and U values
- Heat loss formulas
- Radiator factors and sizing
- Underfloor heating design overview
- Pipe sizing
- Calculating loads at different delta Ts
- Pressure drops
- Flow rates

Day 2

Low Temperature Heating and Hot Water Systems in Dwellings

- Zeta values
- KV values
- Hydronic separation
- Domestic hot water sizing
- Pump sizing
- Expansion vessel sizing
- System balancing
- System types
- Online exam

Day 3

Water Regulations 1999

- Legislation, regulation and bylaws
- Objectives of the Water Fitting Regulations
- Notifiable activities
- Inspections, enforcement and penalties
- Definitions of terms
- Materials and substances in contact with water
- Requirements for water fittings
- Systems design
- Cross connections and backflow prevention devices
- Hot and cold-water services
- WC and flushing, baths, sinks and showers
- Water for outside use
- Hygienic working practices
- Approved Persons Schemes

Day 4

Domestic Hot Water Storage Systems: G3 Unvented

- Building regulations, British Standards, Code of Practice and Notification
- Systems overview and types of cylinders
- System safety components
- Prevention of scalding
- Installation considerations
- System design
- Cylinder sizing
- Discharge pipework arrangements
- Cold water systems overview
- Commissioning and servicing
- Handover to customer
- Theory and practical assessments

Day 5

Heat Pump Systems - Core unit

- Microgeneration Certification Scheme standards and regulations
- Project planning
- Health and Safety considerations
- Types of refrigerants, characteristics and safety hazards
- Types of Heat Pumps (air-to-air, air-water, exhaust-air)
- Heat Pump principals, vapour compression cycle and components
- Heat Pump System efficiencies – COP, SCOP and SPF
- Building load design and heat emitters
- Heating water volume (buffers and volumisers)
- Domestic hot water cylinder selection and sizing
- Heat Pump Systems design (monovalent, bivalent and hybrid systems)
- Heat Pump sizing
- Installation considerations

Day 6

Heat Pump Systems - Core unit

- Installation considerations
- Electrical supply requirements
- Setting systems to work, commissioning
- Documentation and customer handover
- Maintenance and servicing
- Fault finding
- Online assessment - Core unit
- Practical assessment

Day 7

Air Source unit

- Specific installation considerations for Air Source Heat Pumps
- Online assessment - Air unit
- Candidate scenario pack completion
- MCS application process review

Day 8

Ground Source unit

- Installation considerations, principals of operation
- System design, ground types and extraction rates
- Ground Source Heat Pump applications, including pipe array types
- Filling, flushing, setting to work, fault finding and maintenance
- Commissioning
- Documentation and customer handover
- Online assessment
- Practical assessment

For more information speak to our technical team.

01753793244

Greenskills@windsor-forest.ac.uk
www.greenskills.london

Slough & Langley College
Station Rd, Langley, SL3 8BY

To register,
SCAN Code



John McGregor
Tutor

Technical Tutor specialised in Building Services Engineering with experience in Healthcare, Education and high-end residential projects, with particular focus on Ventilation, Underfloor Heating and Low Temperature Systems.



Nigel Kirby
Tutor

Technical Tutor specialised in Plumbing and Heating in domestic and small commercial properties, Social Housing, Construction and Refurbishment projects, with particular focus on Low Temperature Heating and Air and Ground Source Heat Pump systems.



Need a Custom Schedule?

Already hold Water Regs, G3, or Ground Source? Swap those days for alternative Green Skills qualifications, including Solar Thermal Hot Water, Warm Water Underfloor Heating, or Legionella Risk Assessment. Talk to our team to build your tailored timetable!

Who we work with



Protect my Work
28472090525S024



Funded Skills Bootcamp: Low Carbon Heating Systems

