

SKILLS BOOTCAMP - AIR SOURCE AND GROUND SOURCE HEAT PUMPS

Subject Area

Student Type

Study Mode

Construction &
Construction Trades

Adults

Part Time

What is the course about?

The five-week Air Source & Ground Source Heat Pump Technology Skills Bootcamp will provide students with in-depth technical knowledge and practical skills to install, maintain, and commission domestic air source and ground source heat pump systems. Designed to address growing industry demand for low-carbon heating solutions, the five-week course blends theory, hands-on training, and employability development to ensure learners are job-ready upon completion.

The course meets Level 3 standards, with a focus on core knowledge areas such as system design and planning, technical drawing interpretation, health and safety compliance, and system testing. Skills include installation of internal and external components, safe handling of tools, and troubleshooting system faults. Students will also be expected to demonstrate behaviours such as reliability, attention to detail, environmental awareness, and a commitment to continued professional development.

Why should I choose the course?

You should choose this course because it equips you with in-demand technical skills in low-carbon technologies - in both air source and ground source heat pump installation - alongside essential employability skills like teamwork, communication, and interview preparation.

Through hands-on training, employer engagement, and site visits, you'll gain the knowledge, behaviours, and confidence needed for real-world roles in the growing green economy. This course directly supports national and regional economic priorities by preparing you for careers in sustainable energy and helping meet the increasing demand for skilled workers in the low-carbon sector.

What will I learn?

You will gain a comprehensive understanding of the operating principles of heat pump systems, including thermodynamics, refrigerant cycles, and energy efficiency. Both air source and ground source technologies will be covered, with an emphasis on safe installation, system integration, maintenance, and commissioning procedures. As part of the course, students will also explore current industry regulations, environmental legislation, and best practices for customer service and system handover.

What will the course lead on to?


This course opens the door to a range of exciting opportunities in the growing low-carbon and renewable energy sector. You could:



**Warrington
& Vale Royal
College**

Warrington Campus
Winwick Rd, Warrington WA2 8QA

 wvr.ac.uk

 01925 494 494

Winsford campus
Weaver St, Winsford CW7 4AH

 learner.services@wvr.ac.uk

- Start a career as a heat pump installer or low-carbon technician (dependent on prior qualifications)
- Progress into further technical training or specialist qualifications
- Apply for a relevant apprenticeship in the green energy or building services industries
- Build a strong foundation for a long-term career in the sustainable technologies sector, supporting the UK's journey to net zero.

Are there any links with industry and university?

Wider employability skills are embedded throughout the Bootcamp, including teamwork, communication, CV development, interview preparation, and professional conduct. Students will engage with employers via a site visit and a guest lecture. By the end of the Skills Bootcamp, students will have developed the necessary knowledge, practical skills, and behaviours to pursue employment in roles such as heat pump installer, low-carbon technician, or to progress into further technical training or apprenticeships.

What support is available?

We have a team of staff dedicated to providing learning support if it is required and a Wellbeing Team that are on hand to offer guidance, support, and help when needed. Additionally, eligible students can access a wide range of finance and funding support to help them during their time at college.

Why should I choose to study the course at Warrington & Vale Royal College?

You should choose to study this course at Warrington & Vale Royal College because you'll benefit from expert teaching and hands-on training in our specialist Green Technology Hub. This purpose-built facility offers access to the latest low-carbon equipment and systems, helping you develop industry-relevant skills in a real-world environment. The college has strong employer links, giving you valuable opportunities for guest lectures, and potential job pathways. You'll also gain essential employability skills and tailored support, preparing you for a successful career in the fast-growing green energy sector.

What are the entry requirements?

There are no formal entry requirements for this course, but a foundation knowledge or awareness of plumbing and heating systems or relevant plumbing qualification would be beneficial. An interest in low-carbon technologies and a willingness to learn practical skills are essential.

What are my funding options?

This Skills Bootcamp is fully-funded for eligible students. You may be sponsored by your employer, who is required to contribute a portion of the course cost. For personalised funding advice, please contact our Learner Services Team on 01925 494 400 or learner.services@wvr.ac.uk.



**Warrington
& Vale Royal
College**

Warrington Campus
Winwick Rd, Warrington WA2 8QA

 wvr.ac.uk

 01925 494 494

Winsford campus
Weaver St, Winsford CW7 4AH

 learner.services@wvr.ac.uk

Are there any additional costs associated with the course?


There are no additional costs for students taking part in this Skills Bootcamp, as it is fully funded for eligible participants. All tools, materials, and safety equipment are provided. However, if you are being sponsored by your employer, they may be required to contribute a portion of the course cost in line with Skills Bootcamp funding guidelines.



**Warrington
& Vale Royal
College**

Warrington Campus
Winwick Rd, Warrington WA2 8QA

 wvr.ac.uk

 01925 494 494

Winsford campus
Weaver St, Winsford CW7 4AH

 learner.services@wvr.ac.uk