Leicester College

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Sustainable Energy and Renewable Technologies

Course Overview

The course will provide a broad understanding of the need for renewable energy, the renewable options available and the underlying principles. It provides underpinning knowledge that can be built on with further study into full level 3 renewable qualifications. The course is designed to develop the skills and competencies of the students in the following areas: 1. Understanding the issues around the use of fossil fuels and the implications for system design and specification. Exploring the history of our energy generation. Displaying an understanding of carbon release and the greenhouse gas effect on global warming. 2. Developing a broad understanding of the range of appliances available and the advantages and disadvantages of each system. Understanding the process of energy surveys and EPCs. Being able to advise customers on the renewable energy choices available to them. 3. Demonstrating the ability to follow manufacturers' instructions and applying them to installation, commissioning and maintenance tasks. Completing the task sheets in the practical portfolio. 4. Demonstrating an understanding of the physics and processes underpinning heat generation. Completing activities on competent person schemes.

What you will learn

Modules include: Module 1 Introduction to Fossil Fuels Module 2 Introduction to Global Warming Module 3 Introduction to Climate Action Module 4 Air Source Heat Pumps Fundamental Concepts Module 5 Solar Thermal Fundamental Concepts Module 6 Solar PV System Fundamental Concepts As a centre you can choose to do as many of these pathways as needed depending on the role of the candidates and the technologies available in centre but at least one of the pathways must be completed

Entry Requirements

There are no entry requirements for this course, but it is designed for adults aged 19+ who want to enhance their knowledge and skills in green practices within their organisation or business.

How you will be assessed

Modules 1 – 3 are assessed using the Student Activity Booklet. The course is delivered in a way that the booklet is a working document to be completed throughout but it can also be completed at the end of the module three teaching. Modules 4 – 6 are assessed using the practical pathway manual that covers five tasks, the 5 pathways are: Pathway 1: Install, commission, and maintain heat pump Pathway 2: Install, commission, and maintain solar thermal Pathway 3: Install, commission, and maintain solar photovoltaic system Pathway 4: Install, commission, and maintain battery storage Pathway 5: Install, commission, and maintain electric vehicle charging point You can choose to do as many of these pathways as needed depending on the role of the candidates and the technologies available in centre but at least one of the pathways must be completed.

Course Progession

The course will provide a broad understanding of the need for renewable energy, student can work as renewable energy engineers, sustainability consultants, project managers, or researchers, advancing in roles focused on energy efficiency, policy development, environmental impact, and clean energy innovation across industries. Take a look at our other short courses to enhance your learning.

What Happens Next

Apply online via the College website. You will be contacted to attend an interview if required, or you will be sent a conditional offer according to the entry requirements for the course. You will then be invited in to enrol for your chosen course of study. For enrol and pay courses: Once you have decided to take the course, you need to fill in a short learner details form online and pay the course fee. Once you have done this, you will receive an electronic confirmation of enrolment and payment.

Course Details

Course Code P00758

Start Date Various

Study Hours Part Time

Duration 6 weeks

Campus Freemen's Park Campus

Level 2

Apply Here