



LIVERPOOL
HOPE
UNIVERSITY

Est. 1844

Heating and Cooling Policy

Document control

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Objective

The objective of the University, is to provide a comfortable working environment for all staff and students, and to comply with Health and Safety requirements, while minimising carbon emissions and costs arising from the operation of heating and cooling systems.

All academic and residential buildings will be heated to between 18 and 21°C during the heating season. This is an average temperature; actual temperatures may vary within buildings and at different times of day. Where areas are not used as either office accommodation, teaching spaces or residential rooms (i.e. workshops, plant rooms, circulation spaces etc.), the minimum maintained temperature will be no less than the statutory minimum.

Air conditioning / cooling is not standard throughout the University, and comfort cooling is not provided. Where air conditioning / cooling is provided it will be set to no lower than 25°C.

The purpose of this policy is to help users to understand the University's heating and cooling strategy.

Introduction

This policy seeks to clarify the arrangements and expectations for heating and cooling the University's buildings. The aim is to provide a comfortable working temperature during core operational hours, while ensuring that energy is not being wasted through over heating or over cooling.

The University seeks to limit its environmental impact and the associated costs arising from energy consumption, whilst maintaining University activities. This will be achieved, in part, by maximising energy efficiency by monitoring energy usage, identifying and eliminating unnecessary energy use and pursuing a programme of energy conservation.

This policy should be read in conjunction with the University's Sustainability Strategy and Carbon Reduction Plan. The Sustainability Strategy and Carbon Reduction Plan commit the University to achieving net zero Scope 1 and 2 carbon emissions by 2040 and net zero Scope 3 carbon emissions by 2050 or sooner. The University spends a significant amount of money on energy and costs are rising significantly; energy consumption is mainly the result of heating, cooling and using electrical equipment within our buildings.

Regulations

The Workplace (Health, Safety and Welfare) Regulations 1992 sets down specific requirements for most aspects of the working environment. Regulation 7 deals specifically with the temperature in indoor workplaces and states that *"during working hours, the temperature in all workplaces inside buildings shall be reasonable"*.

The Health and Safety Executive's Approved Code of Practice states that *"during working hours a reasonable internal temperature must be maintained and this must not be less than 16°C unless the work involves severe physical effort in which case the temperature can be lowered to no less than 13°C"*. These temperatures are not absolute legal requirements and the University has a duty to determine what 'reasonable' comfort will be in particular circumstances. There is no maximum temperature stated in the Regulations or associated Code of Practice.

The University's policy is to provide a comfortable working/living environment. Thermal comfort is subjective and many factors have to be taken into consideration such as:

- external environmental conditions,
- personal factors (such as clothing and personal preferences),
- the physical condition of the building. For example, the age and location of the building, the age and layout of the heating system and the controls.

It is recognised that not everyone will achieve 'thermal comfort'¹ at 18-21°C. The best that can be realistically achieved in any situation is an environment which satisfies the majority of people. The Health and Safety Executive considers 80% of the occupants as a reasonable figure for the minimum number of people who should be thermally comfortable in an environment.

Heating standards

The University will endeavour to maintain building temperatures between 18-21°C during the core operational hours of the heating season.

Where areas are not used as either office accommodation or teaching spaces (i.e. workshops, plant rooms, circulation spaces etc.), the minimum maintained temperature for all work spaces will be no less than the statutory minimum.

Normal heating hours are between 8am and 6pm, Monday to Friday, excluding Bank Holidays and University closed days, for the duration of the heating season.

Student Residential accommodation will be heated between the hours of 6.30am to 11pm, where central control is available, subject to the standard thermostatic controls of the rooms.

Outside of core occupation times, all buildings default to a temperature setting of 10 to 12°C to maintain the fabric of the building and to protect water pipes.

The Hope Park Sports, library and evening teaching areas are heated to cover their opening times. Outside of normal working hours, heating may be provided in specific circumstances providing a request has been approved by the Estates Department in advance.

The heating season is normally from October to April inclusive, depending on weather conditions. The University is unable to heat specific offices or floors, outside normal operating hours. The University recognises that seasonal weather conditions fluctuate and an assessment of the prevailing weather conditions will be made by Estates and the heating season will be extended or shortened as appropriate.

Adjusting the temperature: as well as centralised control, most radiators have their own temperature control. They sense the local air temperature and this alters the flow of water in the radiator. You can alter the temperature control to a level of 2 or 3 and then leave it alone. Turning the control to maximum will not heat the room any quicker. It will actually increase the likelihood of your room overheating, resulting in the opening of windows, or the valve being turned off. If left turned off, the room may be cold the next morning.

If there are particular circumstances where, for health reasons, individuals may need special consideration then managers should refer to the Health and Safety Advisor for advice.

¹ Thermal comfort is defined in British Standard BS EN ISO 7730 as: 'that condition of mind which expresses satisfaction with the thermal environment'.

Cooling standards

Air conditioning / cooling is not standard throughout the University estate.

The University aims to minimise the provision and use of air conditioning / cooling both in terms of installation and use. The supply and use of air conditioning / cooling in rooms results in greater energy use, increased carbon emissions (from both the increased energy usage and refrigerant gases contained within) and increased running costs. The University does not provide 'comfort cooling'.

Air conditioning / cooling systems will be strictly controlled by the Estates Department.

There is no legal maximum temperature for occupied spaces, and where air conditioning/cooling is installed, the space temperature will be set no lower than 25°C² and the system set to provide cooling only when the space is occupied. All doors and windows of the cooled space should remain closed and any heating should be off.

It is understood that some spaces may overheat, particularly in summer months and these should be brought to the attention of the Estates department. Portable cooling units are not permitted for use in University buildings without the explicit consent of Estates.

Building User Responsibilities

Building users are requested to assist Estates by reporting all heating problems, and adapting their own behaviour to recognise environmental conditions.

It is expected that building users will:

- Accept that their view of an acceptable temperature may not be the same as other users of the building; personal temperature preferences vary greatly among individuals
- Wear suitable clothing, each additional layer can improve comfort by 2-3°C
- Show due tolerance and understanding, especially if they are in buildings that were not constructed to modern standards
- Report areas of over/under heating by notifying the Estates helpdesk as required (<http://svestates/EstatesHelpDeskLive/users/login.asp>)
- Keep heat in the building by closing doors and windows, as appropriate
- Ensure radiators and convectors are not blocked with furniture, clothing, towels etc.
- Do not use portable electric heaters as they pose a significant fire risk and interfere with building controls. This will affect the comfort of colleagues in other parts of the building and mask the underlying problem
- Make use of window blinds/coverings in hot weather to reduce solar gain
- Switch off unnecessary electrical equipment and lighting to reduce heat gains
- Keep doors and windows closed if air conditioning / cooling is in operation

Estates Responsibilities

- Aim to heat and cool buildings set out in this policy
- Investigate complaints of over/under heating promptly and provide suitable feedback

² Current national design guidelines (CIBSE Guide A: Environmental Design) suggests 25°C as an acceptable summer indoor design operative temperature for non-air-conditioned office buildings

- In instances where the temperatures limits stated above are met, but thermal discomfort is still perceived (for example, due to drafts), the Estates Department will examine the feasibility of making improvements to this area. However, especially in older and listed buildings there may be limitations as to what can be done. A thorough appraisal will be carried out to ensure all alternative options have been considered before portable heaters are provided as a last resort
- If temperature standards are being exceeded when the heating is operating, the Estates Office will take reasonable measures to reduce the temperature.

Supplementary Heating

The use of supplementary heating / portable heating appliances is prohibited. This is partly due to their high running costs, but mainly due to the risks they pose to fire safety, as their use increases the load on electrical circuits, and there is the potential that their use will lead to the malfunctioning of primary building heating systems.

Individuals are not permitted to bring in/purchase their own local heaters, and if found, these will be removed.

Supplementary heating or portable heating appliances may be required under certain circumstances such as in the event of an emergency, mechanical failure of the heating system or when a risk assessment has identified a specific need. In these cases, supplementary heating will be provided by the Estates Department.

Organisational Responsibilities

The University will ensure adherence to, and the efficiency of this policy, via the Sustainability Group which is responsible for the monitoring of energy usage. This policy is to be updated and reviewed annually.