

Thermal Comfort
Guidance & Standards



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Section One | Scope of Guidance

This guidance relates to the thermal comfort in all areas of Keele University and includes both staff and students. It provides specific information about the use of portable electric heaters on campus.

Section Two | Guidance Statement

Keele University aims to provide a comfortable working environment for staff and students, and to comply with Health and Safety requirements while minimising carbon dioxide (CO₂) emissions and costs arising from the operation of heating systems.

Heating Season

During the heating season, which usually starts in September and ends in May, the University aims to maintain internal temperatures in buildings within the range of 19 to 21°C. Should internal space temperatures outside of this period fall noticeably lower than average due to uncharacteristic weather conditions, the Estates Team will monitor the conditions and consider if central heating is required.

Heating Times

Heating times for academic buildings during the heating season are based upon the building being as close to the maximum internal temperature set point as possible during building occupancy, generally between 8:30 – 6pm, Monday to Friday.

Pool rooms, lecture theatres and teaching areas are heated during the heating season to their class booking times once these times are known. Similarly, library areas are heated during the heating season to cover its opening times.

Heating outside of these times during the heating season may be considered although there may be a charge made for this to the department/school requesting this option. All requests should be made to estates@keele.ac.uk or by calling 01782 7 33137.

Thermal Comfort

Human perception of a comfortable temperature is not only based on air temperature. Several other factors can impact significantly and must be considered:

- Drafts
- Relative humidity
- The individuals metabolic rate
- Insulation (clothing)
- Radiant temperature

Therefore it is recognised that not everyone will achieve 'thermal comfort' at 19-21°C and it is expected that occupants will where possible moderate their own comfort by considering all of these factors. It is also recognised that personal comfort can depend on building design and room layout, for example the relationship between desk and heat source locations or windows. Such considerations should be borne in mind when plans are being made to change the layout of a building, the rooms within it or the location of an individual's work station within a space.

Where local heating controls e.g. thermostatic radiator valves, are provided, it is expected that occupants will manage these in such a way that internal temperatures are comfortable but do not exceed the maximum temperature of 21°C. Windows and doors should be closed where possible during the heating season.

Legislation

The Workplace (Health Safety and Welfare) Regulations 1992 Approved Code of Practice states that temperature in workrooms should provide reasonable comfort and goes on to specify that this should normally be at least 16°C for sedentary work and 13°C for manual work.

Electric Heaters

The use of portable electric heaters is not recommended by the University as:

- In certain circumstances they can represent a significant fire risk
- They are expensive to run
- Their usage can result in significant CO₂ emissions
- Incorrect use can disrupt central heating systems as internal temperature sensors detect high temperatures
- The electrical system is not designed for heavy load use and overloads can cause power outages

As such the University seeks to employ supplementary electric heating only as a last resort, preferring instead to understand and correct the underlying issue causing the thermal discomfort.

Process

In the event that a building occupant feels that the space temperature is not being maintained to the appropriate level, a request should be made to the individual's line manager to request a member of the Estates Team to investigate. See Annex A for a graphical representation of the process.

On receipt of a request, the Estates Team will initially interrogate the building heating control system to determine if the current settings are adequate.

If this does not rectify the issue, a member of the Estates Team will attend the problem area with a temperature logger to confirm that the temperatures are below the acceptable threshold and to determine if there are any specific times that the problem is occurring.

Following confirmation of the issue, a review of the workspace shall be undertaken to determine if there is an underlying cause and if this can be resolved.

If the problem cannot be resolved, or if a solution is found but cannot be immediately implemented, a thermostatically controlled oil filled electric radiator that has passed portable electrical testing will be issued for a set period of time.

Under no circumstances should an electric heater be used if it has not been issued by the Estates Team.

If an unauthorised heater is found it may be removed without warning during routine Energy Audits or Health & Safety inspections

A nominated person will be required to take ownership of the heater and instruction will be given to ensure that it is used in a safe manner. It is the responsibility of the nominated person to look after the electric heater. A charge will be payable for electric heaters that are not returned to the Estates Team.

Section Three | Safe Use of Electric Heaters

Electric heaters pose a significant fire risk if used improperly. If you have been issued with a portable electric heater by the Estates Team you must be aware of the following safety advice. It is your responsibility to ensure safe operation of the unit.

- Do not place the heater under or near a desk
- Do not leave the unit unattended whilst in operation
- Do not leave on overnight in any circumstances
- Ensure that the heater has a valid portable appliance test for the entire time it is with you. A sticker will on the unit or the plug will indicate the next review date.
- Only oil filled electric radiators issued by the Estates Team are permissible on campus
- Do not place the heater in a location where it can be knocked over
- Keep at least one meter clear of curtains, furnishings, paper
- Do not drape anything over the heater or use to dry clothing.
- Do not sit too close as your clothes may set on fire
- Look out for smells or discoloration of the wiring/controls as this may indicate an electrical fault. If in doubt unplug the unit and report to the Estates Team.
- Do not plug the heater into an extension cord or multiplug
- Ensure that the cable does not present a trip hazard

Annex A – Process chart

