1. Purpose

The Policy seeks to inform staff and students, and provide a consistent message, on the provision of heating and cooling across the estate, and how this impacts upon University environmental and energy performance.

2. What is covered by the policy?

This policy primarily outlines the minimum requirements set by the University in terms of internal room temperatures, the times at which these apply, and brief descriptions around

practice.

Information on decision-making regarding the heating season is covered, with respect to what exactly is considered when assessing the case for reverting to winter heating mode following the summer holiday season.

The concept o _____ itself is also explained; providing guidance on the

impact on others with particular emphasis placed on supplementary electric heaters, and the exceptional circumstances where these would be approved.

The communication routes by which out-of-hours heating extension requests, air conditioning unit requests, and fault reports / complaints can be made are highlighted within the accompanying policy procedure.

3. Who does the policy apply to?

Staff within University buildings should have a general understanding of the policy.

4. Policy

The University aims to provide a comfortable working environment for staff and students whilst complying with Health and Safety requirements, and minimising carbon dioxide (CO_2) emissions and energy expenditure arising from the operation of heating and cooling systems.

Heating Season

The heating season is dependent on the outside air temperature but will largely follow the pattern of being turned on during October and switched off in March/April. During the heating season, the University aims to maintain internal temperatures within the range of 19 - 21°C during core teaching hours.

Heating will not be provided on bank holidays or closure days unless there is an identified operational requirement.

Outside of the heating season, if internal space temperatures drop significantly due to abnormal weather conditions, the Facilities Team will actively monitor conditions and consider if heating systems should be switched on. The decision-making process will balance factors including internal temperatures, availability of heating systems (which are maintained during the summer and are not always available), the weather forecast and cost/environmental impacts. In mechanically ventilated spaces, heating via airflow may be sufficient to meet the heating demand i.e. radiators may not be required.

Heating Times
Buildings will be heated to maintain a comfortable temperature for normal operating hours between 8:00am and 08:00pm Monday to Friday. Where areas are being used beyond the normal working hours special arrangements for heating can/will be made (for example lecture theatres, libraries, student study areas).

5. Policy Procedure

Heating and Cooling Parameters:
Maximum heating temperatures

- No area shall be actively heated to a temperature higher than 20°C (± 1°C to allow for control variances).
- Circulation spaces shall not be actively heated above 18°C.
- Corridors shall not be actively heated above 16°C.

Minimum cooling temperatures

- Where air conditioning is installed no area shall be actively cooled to a temperature below 25°C (± 1°C to allow for control variances).
- Corridors and circulation space shall not normally have mechanical cooling supplied.

Building Management Systems
Most Heating, Ventilation and Air Conditioning (HVAC) systems in most buildings are controlled by a Building Management System (BMS). The BMS detects both internal and external temperatures and, based on previous performance, calculates the appropriate time to switch on systems (boilers, pumps etc.) in order to achieve the temperature set-point by the start of the occupancy period. The BMS also performs a range of other functions including frost protection of buildings/plant, and switching off radiator systems when external

fitness, health issues, fluid intake and personal acclimatisation. Therefore, it is recognised -21°C and it is expected that building users will moderate their own comfort by dressing appropriately for their preference, regardless of the season. Further useful information to help you meet your comfort levels may be found here and on the HSE website.

Where local heating controls e.g. thermostatic radiator valves are provided, it is expected that building users will manage these in such a way that internal temperatures reach 19-21°C. Windows and doors should be closed during the heating season to limit heat loss.

Health and Safety Legislation

The Workplace (Health Safety and Welfare) Regulations 1992 Approved Code of Practice states that temperature in workrooms should provide reasonable comfort and specifies that this should normally be a minimum of 16°C, or 13°C for more active, manual work. The regulations do not set a maximum temperature.

Energy Conservation

Operation of University heating systems results in the annual emission of approximately 2,213 tonnes of CO2. Increasing the temperature set point by 1°C can cause CO2 emissions and heating costs to rise by as much as 8%. The University has set a CO2 reduction target of 10% by 2025, and reducing unnecessary heating will help us achieve this goal.

Supplementary Electric Heaters

Supplementary electric heaters are inefficient, environmentally damaging and can pose a significant fire risk. Electric heaters use significant amounts of energy, resulting in additional CO2 emissions, and shall only be used in exceptional circumstances (e.g. heating faults) under the direction of the Facilities Team.

and switch off the heating to the relevant heating zone, potentially large areas of the building.

Click here

Cooling

In general, the number of days during the year where cooling is required is significantly lower than the number of days requiring heating. Air conditioning (AC) is not provided to most spaces and the use of AC for comfort cooling is not generally permitted alternative, lower energy means of cooling spaces should be used e.g. natural or mechanical ventilation.

Where AC is available, it will normally be set to come on when the temperature exceeds 25°C. In rooms with AC it is important to keep all windows and doors closed to ensure the feedback loop is not disrupted, and the cooling continues to function as designed.

In most areas, AC is not available and instead, where possible, (fresh air) ventilation rates will be increased when internal temperatures rise. Where ventilation is the only method of cooling, opening windows and doors is acceptable. There is no upper legislative limit to temperatures, so building users should dress appropriately for the weather, and take measures as appropriate (drink sufficient water etc.).

Projects Requiring Cooling
The refrigerants used in AC systems can have a global warming potential, thousands of times greater than that of CO2. The University aims to limit the use of air conditioning due to its high costs and environmental impact. The installation of new AC systems is therefore subject to an assessment and approval process.

Appendix 1 Additional Information

Related regulations, statutes and policies
Environmental Policy

Action on Carbon

jumper in the office for those occasional 'off days' when you may feel colder and wear layers that you can adjust according to your comfort.

Mechanical Cooling / Air Conditioning

The following pointers will help you increase the effectiveness of cooling systems (where installed) or reduce the need of their operation.

- All windows and doors must be kept closed in air-conditioned areas.
- Report to the Facilities Team any poorly fitting windows and exterior doors and incorrectly operating automatic door closers.
- Wear appropriate clothing to the temperature outside and if you are located in an area where the air conditioning is too effective try and remember to keep a jumper or other suitable clothing item to wear to maintain a comfortable temperature.
- Never operate heating and cooling systems in a space at the same time. For example, using a personal heater in an air-conditioned space. Instances of this must be reported

- Where rooms are found to have these heaters on and doors/windows open then the Facilities Team will issue advice to ensure efficient usage of the heaters is undertaken.