Policy Title: Temperature Set Point Policy

Policy Summary: Establish Temperature Set Points for Campus Buildings

Policy Category: Administration & Operations
Policy Owner: Facilities Planning and Management

Policy Summary

This policy establishes formal heating and cooling temperature set points for thermal comfort and energy conservation of buildings and campus spaces.

Purpose

This policy will advance the goals of Drake University Climate Action Plan by establishing optimal temperature ranges necessary to balance human comfort, productivity, and sustainable objectives assisting reducing energy consumption and carbon footprint to ensure the campus making progress toward carbon neutrality pledge by 2050. Every degree reduced in the winter and increased in the summer can yield a 3% reduction in annual heating and cooling costs.

Scope

This policy applies to all university buildings and requires all students, faculty, and staff to keep manually adjustable thermometers in the specified range unless informed otherwise. FPM will adjust main HVAC system temperatures using the BAS (building automations systems) ensuring building temperature range is comfortable for occupants year-round.

Definitions

Cooling season: The summer months that require air conditioning typically from mid-April to mid-October.

Heating season: The winter months that require heating typically from mid-October to early mid-April.

Shoulder season: The transitional period when the underground piping loop system is changed over from steam to chilled water or vice versa and air-conditioning or heating may not be available during those days even though the outside air temperature may require it. This is because it is not feasible for the central plant to alternate between cooling and heating on a daily basis. However, during these shoulder periods, the outside air temperature is usually mild and space temperatures are expected to be within the comfort range.

Target Temperature: The target temperatures are within the range that is acceptable to 80 percent of the building occupants per ANSI/ASHRAE Standard 55, Thermal Environmental Conditions for Human Occupancy. This is also the recommended range of temperature control as provided by OSHA and the U.S. Department of Labor. However, due to the age of the heating and cooling systems on campus and the inability to control temperatures at an individual room level, occupants may experience a range of temperatures in their spaces that are a few degrees on either side of ideal set points. If the space consistently is outside of acceptable temperature range, please have your building contact complete a work order and FPM HVAC staff will address the issue.

ASHRAE: American Society of Heating, Refrigerating, and Air-Conditioning Engineers is a non-profit industry standards organization focused on building systems, energy efficiency, indoor air quality, refrigeration, and sustainability technologies. ASHRAE publishes a set of standards and guidelines relating to HVAC systems and issues, that are often referenced in building codes and used by consulting engineers, mechanical contractors, architects, and government agencies.

Policy

Occupied and Unoccupied Hours: Occupied hours are building specific when doors are unlocked, and faculty, students, staff, or visitors are allowed entry. All other hours are considered unoccupied when doors are locked, and/or buildings are closed. Residence Halls are considered occupied 24/7 except during periods of holidays or breaks when students are not permitted in the buildings, those periods are defined as unoccupied.

Temperature Set Points:

	Cooling Season	Acceptable	Heating Season	Acceptable
	Set Point	Temperatures	Set Point	Temperature
		Range - Cooling		Range – Heating
Occupied Hours	74° F	72° F – 76° F	70° F	68° F – 72° F
Unoccupied Hours	82° F	78° F – 84° F	60° F	58° F – 62° F
Residence Hall	72° F	70° F – 74° F	70° F	68° F – 72° F
Student Rooms*				
Libraries, Research,	74° F	72° F – 76° F	70° F	68° F – 72° F
Music, Computer				
Labs or other Specific				
Buildings~				

^{*}Student rooms have manually controlled thermostats; the set point represents the setting for the building's main HVAC systems.

~Certain buildings will remain in an Occupied Space setting continuously due to labs or items located in the buildings that would be affected inversely by temperatures.

Large events will be exempt from the temperature set point policy, and FPM will continue to pre-cool or adjust temperature spaces for those specific events.

Use of Space Heaters, Portable A/C Units and Fans:

Space heaters are allowed to be used by faculty and staff granted they follow the requirements listed in the Space Heater policy. Portable A/C units may be installed by FPM HVAC staff only in those limited instances where deem necessary in which the building systems cannot provide temperatures within acceptable variation of the ranges stated above. Energy efficient table or pedestal fans are permitted and considered acceptable solutions to increase your sense of comfort by improving air movement.

Building Occupants Guidance:

Building occupants can help contribute to this policy and make it a successful university-wide conservation effort. Building occupants are encouraged to wear seasonally appropriate or layered clothing to prevent discomfort with seasonal temperature set points. Drake's flexible Dress for Your Day Policy also considers thermal comfort. In addition, please do not open doors or windows when a space is being heated or air conditioned as this only compounds the energy wasted. If you do have operable windows, consider managing the solar energy by raising or lowering the blinds as needed and circulating air with a fan.

Last Review Date: n/a

Effective Date: February 2024

Resources and Related University Policies:

<u>Dress for Your Day Policy</u> <u>Space Heater Policy</u>