

## **Heating and Cooling (Space Temperature Setpoint) Policy**

### **Why a policy?**

- The SUNY Energy Conservation and Sustainability Implementation Plan requires all SUNY campuses to develop and execute a sustainability plan that includes, but is not limited to, setting heating and cooling temperatures for academic and research buildings during occupied and unoccupied hours with an objective to conserve energy.
- The University spends over \$5 Million per year to heat/cool the campus buildings.
- Every degree reduction in winter temperature setpoint and every degree increase in summer temperature setpoint yields 1-2% reduction in annual heating/cooling costs.
- The policy supports the University's sustainability goals and will result in at least 2 Million pounds of CO<sub>2</sub> emissions reduction per year.

### **Defining the Cooling and Heating Seasons**

For the purpose of this policy, cooling season (or summer) is from late May to early October and heating season (or winter) is from mid-October to early May. During the changeover from cooling to heating season and vice versa, there might be days when air-conditioning or heating is not provided to buildings even though the outside air temperature may require it. This is because it is not feasible for our 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.

### **Defining Occupied and Unoccupied Hours**

For the purpose of this policy, occupied hours are defined as Monday-Friday 8AM to 6PM for most routine office uses. The occupied hours are extended up to 10PM and may include weekends for certain classrooms, laboratories, Campus Center, Libraries, Physical Education, SEFCU Arena, and Performing Arts Center buildings to accommodate extended building schedules and activities. All other hours are considered unoccupied. Residence Halls are considered occupied 24/7.

### **Space Temperature Set Points during Occupied Hours**

Space temperatures will be targeted for 68° during the heating season and 76° during the cooling season during occupied hours. The target temperatures are within the range that is acceptable to 80 percent of the building occupants per ANSI/ASHRAE Standard 55-2004, *Thermal Environmental Conditions for Human Occupancy*.

In implementing this policy, all spaces will be maintained as close to the set point as possible. However, due to the age of the heating and cooling systems on campus and the inability to control temperatures at individual room level, occupants may experience a range of temperatures in their spaces that are a few degrees on either side of the set point. This should be acceptable and comfortable to most occupants. If the space temperature drops below 65° during winter or is above 78° during summer occupied hours, please inform the Facilities Department immediately.

Please note that selected buildings that use reheat systems may be maintained at 68-72° during summer to minimize reheat and conserve energy. (Reheat systems refer to systems where air is cooled to below dew point temperature to dehumidify and is then reheated to maintain comfortable space temperatures). Also, computer centers, labs and other critical areas that are required to be maintained at certain temperatures are exempt from the policy. Areas that are served by the same system as the exempt spaces will be affected and will experience similar temperatures.

### **Space Temperature Set points during Unoccupied Hours**

During off-hours and weekends, the temperatures will be adjusted to be as low as 55° during winter and as high as 80° during summer.

The central fans systems will be shut off or cycled on and off to maintain these adjusted setback temperatures and conserve energy. Due to the thermal mass of the older concrete buildings, the spaces may never actually reach the setback temperatures during weekdays before it is time to start the central fan systems again in the morning. The Facilities Department strives to start the fan systems optimally to ensure systems turn on “just in time” to warm up or cool down the spaces to the occupied set point temperature before the building is occupied in the morning. However due to the inability to accurately predict the amount of time the building would take to warm-up or cool-down – depending on the weather on any given day – it can be expected that occupants may experience temperatures that are outside the comfort range early in the mornings for 1 or 2 hours, especially on Mondays or after breaks. This issue will be resolved with time as building operators keep adjusting the start time to achieve the right balance between energy conservation and occupant comfort.

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

As a policy, space heaters and portable A/C units are prohibited due to fire code, other health and safety considerations, and energy conservation mandates. Facilities Department will permit approved space heaters/portable A/C units only in those limited instances where the building systems can not provide temperatures within acceptable variation of the ranges stated above. All other space heaters/portable A/C units in any other spaces are subject to confiscation by the Facilities Department. Energy efficient table or pedestal fans are permitted and considered acceptable solutions to increase your sense of comfort by improving air movement.

### **Questions/Complaints**

As building occupants, you can help implement and adjust to this policy and make it a successful University-wide conservation effort. However, if you have complaints about the temperature setpoint policy implementation, please address them to the University Energy Officer at 442-3183. To report over- or under-heating or cooling, please call Customer Service at 442-3480.