

University at Albany's Space Temperature Setpoint Policy

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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 nearly \$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 CO₂ 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

Occupied hours are building specific and posted on the Facilities website (<http://www.albany.edu/facilities/energy/documents/AHU-Schedule.pdf>) each semester. All other hours are considered unoccupied. Residence Halls are considered occupied 24/7 except during breaks when certain buildings are unoccupied.

Space Temperature Set Points during Occupied Hours

Space temperatures will be targeted for no less than 68° during the heating season and no greater than 76° during the cooling season during occupied hours. The target temperature range is considered 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 much within this range 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.

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 cannot 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 FM Operations Center at 442-3480.