

UALBANY BUILDING VENTILATION AND COVID-19 SAFETY

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UALbany's facilities staff is comprised of engineers, architects, and building operations professionals whom have been integral contributors on scores of COVID-19 campus, SUNY-wide, and national task forces and planning groups. Best practices and continually emerging guidance regarding mechanical and ventilation systems have been, and will continue to be followed, including guidance provided by the CDC, the State of New York, the World Health Organization, and the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE).

While ventilation is not capable of addressing all aspects of infection control, modification and upgrades to HVAC systems, where necessary, combined with wearing a mask, physical distancing, and hand-washing will help prevent the spread of COVID-19. Generally, with respect to HVAC, increasing outside air into interior spaces and improving filtration of recirculated air are the primary mechanical ventilation objectives to help mitigate the spread of COVID-19. Accordingly, UAlbany's facilities staff have been hard at work to achieve the following:

MECHANICAL SYSTEM OPERATIONAL CHANGES

- Building air systems have been modified to run two hours prior to building opening and two hours after the building is closed to increase air exchanges.
- Residential housing mechanical systems will run 24/7 as will elevator and restroom exhaust fans.
- Outside air will be increased into spaces where practicable, sometimes to the detriment of heating and cooling.
- On a very elementary level, by default, with far less density in offices, dining, and libraries (at least 50 percent fewer people), and classrooms (typically 60 to 80 percent fewer), ventilation will be increased by a like amount, as HVAC systems are designed to account for full occupancy.

FILTRATION UPGRADES

- The level and quality of filtration has been in the news, most recently shopping malls are required to use MERV (Minimum Efficiency Reporting Value) filters rated MERV-11 or higher as a precondition for opening and gyms and fitness centers are required to use MERV-13 or higher filters.
- HEPA filters, also widely discussed, are rated MERV-17 and higher. They are very thick filters that are claimed to capture the virus particle related to COVID-19. Existing building systems, such as those at UAlbany (and most commercial and higher education building in the world), are not designed for these filters. Attempting to install them will essentially block the flow of air, burn out fans and motors, and lead to catastrophic mechanical systems failure.
- That said, University buildings are currently set to bring in 100% outside air and/or use MERV-11 or MERV-13, many with secondary pre-filtration, capturing virus particles which adhere to other microcontaminants that typically exist in any indoor setting, but not to HEPA filter levels.
- Portable HEPA filtration units, however, have been deployed in select spaces with no mechanical ventilation or limited ventilation/filtration as a means to meet COVID-19 air quality guidelines.
- In summary, the University meets or exceeds guidance on air systems and filtration.

DOWNTOWN CAMPUS BUILDINGS

- Most Downtown Campus buildings and spaces have mechanical ventilation systems with outside air and MERV-11 filters, however, selected spaces in Milne and Draper do not.
- For most of these Milne and Draper spaces, Facilities has deployed mobile air filtration units, with HEPA filters designed to circulate and purify air.