

UMass Dartmouth

COVID – 19

FAQs & Guidance

This document has been developed by Facilities Management

The information that informs this document is updated frequently.

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COVID-19: FAQs and Guidance

For the UMass Dartmouth Community

Facilities, staff, Deans, and other administrators are increasingly being flooded with news reports, guidance from public health authorities, position documents and recommendations from engineering and trades associations, and promotional materials from manufacturers and service providers on tools and methods to reduce COVID-19 risks to their building occupants. This information and guidance are often unsolicited, conflicting, seemingly changes by the hour, and may not be practical to our (or any) situation.

Subject matter experts within Health Services, Environmental Health and Safety, and Facilities have been continuously monitoring reports in the news, guidance from federal and state agencies (such as Massachusetts State Health Department, Governor's Executive Orders, CDC & EPA), procedures from trade associations (such as ASHRE, ANSI), and the medical and scientific literature to assess risks and to evaluate mitigation strategies.

The COVID-19 details and scenarios continue to be fluid. At this time one thing remains consistent that there is no engineering or operational solution that exists that will **eliminate all risk**. There are many devices and modified procedures being advertised as solutions but may fail to provide any measurable gains, and they may dramatically divert limited funds from other strategies that are far more practical and likely to provide benefits. The university will continue to weigh all of these resources to determine what is most practical in terms of risk and cost with the shared goal of campus safety and good stewardship.

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VENTILATION

COVID-19 AND HVAC

What role does HVAC play in the transmission of COVID-19?

The means by which SARS-CoV-2 (the virus that causes the COVID-19 disease) is generally believed to occur via droplets from infected persons and by contact with contaminated surfaces. Larger droplets generated during coughing and sneezing are considered to contain more virus than are smaller aerosol particles elicited by talking. Larger droplets would almost invariably sediment rapidly from the air, and likely before they might enter HVAC systems. HVAC systems are important infection control components in clinical settings, Hospitals, labs, and certain hazardous environment workplaces, but are traditionally not relied upon for such purposes in other workplaces or residences. Mechanical ventilation is a secondary concern, as the primary risk of virus transmission is through other means. "Basic principles of social distancing, surface cleaning and disinfection, handwashing, and other strategies of good hygiene are far more important than anything related to the HVAC system. **Currently, there are no reports that would implicate HVAC systems as conduits for the spread of the SARS-CoV-2 virus from space to space transmission.** ASHRAE May 2020 Guidance for Building Operations

https://www.ashrae.org/file%20library/technical%20resources/ashrae%20journal/2020journaldocuments/72-74_ieq_schoen.pdf

<https://www.achrnews.com/articles/143255-can-hvac-systems-spread-the-covid-19-virus>

Occupants are encouraged / required to wear face coverings indoors and practice social distancing. Face coverings are considered to serve as important source control strategies to lessen the abundance and velocity of particles generated and expelled by a person.

FILTERS

Is the University going to install filters to capture virus particles within the HVAC?

All HVAC systems currently utilize filtration that was designed to ASHRAE standards at the time of design / construction and filters are changed in accordance with the filter manufacturer. The University currently maintains the highest rated filters for each buildings system design. **Adding higher rated filters to an HVAC system may impair airflow, exceed design static pressures, impede air changes and reduces ability for the system to maintain ASHRAE standard operation and may result in breakdown of building air supply equipment. In addition, the physical size of higher rated filters can not be accommodated by the existing equipment and would require a significant retro fit of the equipment once it was determined that the system's functionality is not affected.**

OUTSIDE AIR

Does the amount of outside air introduced into the HVAC system purge the COVID-19 virus from the building?

The amount of outside air introduced into an air handling system reduces the amount of air that is recirculated within a building. Outdoor air is not considered a source of SARS-CoV-2 virus. To reduce the potential of droplets and aerosols potentially drawn into the HVAC (Heating Ventilating and Air Conditioning) return air, building occupants are encouraged to utilize face coverings.

Increasing the proportion of outside air drawn into the building beyond the minimum required by [Massachusetts Building code and the ASHRAE Standard 62.1 \(Ventilation for Acceptable Indoor Air Quality\)](#) may improve general indoor air quality by reducing the amount carbon dioxide and other internal air pollutants in recirculated air. However, increasing outside air will introduce hot moist air into the building during Summer months and cold air in the Winter months. Increasing the amount of Hot / Humid air may tax the HVAC system's ability to cool the space and wring out the moisture in the air. This can lead to the propagation of mold within the building. Conversely the HVAC system may not be able to warm the outside air sufficiently during the winter, in order to provide a comfortable environment.

AIR EXCHANGE RATE

Can the University increase the air-exchange rate in offices and other rooms?

Current air exchange rates were established when the basis of design was established for a building, based on the type of occupancy and governed by ASHRAE standards at the time. For this reason, system limitations may or may not allow the possibility to increase airflow in a room. However, increasing the air exchange rate, may markedly disrupt airflow patterns and mixing within the room, and possibly encouraging aerosols and small droplets to remain suspended in the air longer.

Intensive air testing and computational fluid dynamic modeling would be necessary to predict the extent to which (if any) modifying the air exchange rate would affect the likelihood of SARS-CoV-2 virus transmission. Air changes per hour do not dictate how many occupants per room, square footage is used for this. **Currently, it is uncertain as to the effect of air exchange rates on risks associated with this virus. No amount of air changes can 100% remove the risk of spreading the virus completely.**

OPERATING SCHEDULE

Can the University keep the HVAC system running all the time?

Many rooms require active ventilation only when they are occupied. Our campus is currently running all HVAC system 24/7. Currently ASHRAE's draft Co-vid response guidelines recommends that Facilities purge the building by running the ventilation on full occupancy mode 2 hours before school starts and 2 hours after it ends. UMass Dartmouth is exceeding this recommendation in order to dilute and purge any remaining potential contaminants in the air. In addition, social distancing within class rooms will significantly reduce occupancy rates of the building. Since the volume of air was developed based on a much higher occupancy we are essential providing 2 to 3 times the required amount of air into the space, including outside air changes. For example, if a classroom was designed for an occupancy of 35 people per 1,000sqft and we go to 15 people per 1,000sqft then we are more than 2x better than code for volume of air provided to the space.

TEMPERATURE AND HUMIDITY

What temperature and humidity set points are needed to reduce the risks of COVID-19?

The stability and duration of infectiousness of the SARS-CoV-2 virus in the environment is complex and remains controversial. Select set points that are comfortable to workers and appropriate to the items housed within the building. **It remains unproven that changing the temperature and RH (Relative Humidity) of your building will measurably reduce risk to your building occupants by this virus.** Currently, our existing systems do not provide the Facilities Department with the ability to adjust humidity within the vast majority of our buildings.

PLUMBING

WATER SUPPLY SYSTEMS

Can COVID-19 be present in the water supply?

There is no evidence that SARS-CoV-2 (the virus that causes COVID-19 disease) is transmitted through drinking water, and there is no reason to test for this virus in the water supply.

Facilities has been maintaining our water systems (domestic cold and hot, RO/DI, and other systems), and has been frequently purging all pipes to maintain adequate flow and flushing. Water supplied by municipal water systems is treated before being distributed. The intent of this water flushing plan is to help insure that potable water is continually turned over in our building's plumbing lines and distribution piping system.

The Plumbing Department will flush fire hydrants on campus in a series that pulls water in a unidirectional method. The plan does not flush every hydrant on campus, our goal is to flush them sequentially to move water through our campus's distribution system. Each hydrant identified on the plan will be opened and allowed to run for a period of 20 to 30 minutes each.

In unison, arrangements have been made with Custodial Services to have their staff begin flushing toilets, and running all water continuously starting on the lower floors for at least 5 to 10 minutes in each bathroom, janitors sink and shower etc. working their way towards the top floor of each building in subsequent days until each building has been flushed. This procedure will be carried out continuously while the campus remains under low usage, with our goal of addressing all buildings on campus on a monthly basis

For more guidance visit:

- [CDC: COVID-19 and Water](#)
- [CDC: Guidance for Reopening Buildings After Prolonged Shutdown or Reduced Operation](#)
- [CDC: Commercially Bottled Water](#)

CLEANING & DISINFECTING

FREQUENCY

How often are restrooms being cleaned?

Restrooms will be sanitized daily and will be revisited throughout the day for high touch points and general cleanliness checks.

How often are high-touch/high-traffic areas being cleaned, such as elevator buttons, railings and door handles?

High-touch/high-traffic common area surfaces cleaned multiple times throughout day.

Can we request additional cleaning in our office space?

We all need to do our part in keeping our campus clean and safe. As stated in the University's reopening document, Departments will be expected to wipe down their spaces daily. Facilities will clean and disinfect frequently touched

surfaces in rest rooms, classrooms, and common spaces everyday to the best of their ability. Cleaning of Labs and Research Spaces will be determined on a case by case basis by a joint partnership between facilities, the Department, EHS, and the Research compliance office

Will additional hand sanitizer stations be installed all over campus?

Facilities is surveying all hand sanitizer locations and will supplement as needed. Standard locations for hand sanitizer stations will be at main entries and exists, outside of restrooms, eating locations, and in atrium lobbies. Hand washing continues to be the best way to protect yourself per CDC guidance.

Personal Protection Barriers

The University is committed to protecting the health and safety of our students, faculty, and staff.

As we prepare for phases 2 and 3 of the University's return to campus plan, we are establishing a process to evaluate partition requests, prioritize them, and align resources. A standard form is in development and will be shared with the Campus Community shortly.

A task force, made up of Administration, Health Services, Environmental Health and Safety, Facilities and Student Affairs, has been created and charged to assess partition requests. Providing Barriers to locations where they are not needed, diverts precious resources away from activities that would have a greater impact to the Campus Community's safety and wellbeing. This group will use guidelines from the CDC, Massachusetts State Health, and the Governors directives to accomplish this task.

The request form asks Departments to challenge themselves and their business processes; recognizing offices should be staffed at 50% capacity; there will be a reduction of students on campus; face masks are required on campus; ask yourself can social distancing be maintained; do close interactions take 15 minutes or more; can some business be accomplished virtually. After this self assessment, if you feel that your department still requires a personal protection barrier submit the request form to facilities to start the evaluation process. If approved a work order will be developed by Facilities for the procurement and installation of the unit.

Will we be supplied cleaning materials?

Bulk purchases of Cleaning supplies are being procured and will be made available to all departments. As stated in the University's reopening document, Departments will be expected to wipe down their spaces daily.

Is the school using CDC approved cleaners?

All of the cleaners that Facilities use are on the CDC approved list.

The automatic chemical management system utilized by Facilities Operations use a National Chemical Laboratories, Dual Disinfectant Cleaner #256 which is EPA approved and is intended to clean, sanitize, disinfect, and deodorize surfaces.

National Chemical Laboratories" AVISTAT – D is a ready to use disinfectant cleaner in a premixed spray, approved by the EPA and is intended to clean, sanitize, disinfect and deodorize surfaces.