



COVID-19 RTW Ventilation FAQs

UNIVERSITY OF CALIFORNIA, RIVERSIDE

OVERVIEW

General COVID-19 Infection Prevention recommendations should be followed by building occupants regardless of the HVAC functionality. This includes, but is not limited to:

- Getting [vaccinated against COVID-19](#)
- Adhering to the [Campus wide COVID-19 Prevention Plan](#)
- Adhering to your departments [COVID-19 Worksite Specific Plan](#)
- Participation in the [UCR COVID-19 Daily Wellness Check Survey](#)
- Wearing a face covering indoors while on campus property, regardless of vaccination status.
- Following CDC recommendations for handwashing, which includes use of soap and water and washing for 20 seconds.
- Washing hands after touching commonly touched surfaces such as doorknobs, light switches, shared equipment, etc.
- Not touching your face without first washing your hands.

Maintaining building systems, including HVAC systems, supports safe occupancy on an ongoing basis by ensuring proper ventilation in all occupied spaces.

UCR is utilizing the following to inform HVAC-related measures on campus: California Department of Public Health (CDPH) COVID-19 Industry Guidance for Institutions of Higher Education, CDPH Interim Guidance for Ventilation, Filtration, and Air Quality, Centers for Disease Control and Prevention (CDC), American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE), California Division of Occupational Safety and Health (Cal/OSHA).

HVAC FAQs

I am concerned about COVID-19 and the air quality in my work area. How do I know my work area has adequate ventilation?

UCR buildings are typically supplied with a percentage of outside air, either via natural ventilation or mechanical fans, dependent on each building and system. Those systems are maintained to provide ventilation and thermal comfort as designed through the following activities:

- Filtration Maintenance: Building filtration systems are well maintained and have the appropriate level of filters for each building's mechanical design.
- HVAC systems are set to maintain appropriate indoor temperatures and air quality as much as system designs allow. These systems are optimized to bring in the maximum amount of fresh air feasible while still maintaining recommended indoor temperature ranges and air quality. In most cases, laboratory ventilation systems operate continuously with 100% outside air supply that is not recirculated in the building and is exhausted directly to the outside. These systems are already designed to exhaust indoor contaminants effectively.
- In most cases, exhaust fans in restrooms operate continuously when buildings are occupied. For restroom exhaust fans to work best, it is recommended to avoid opening operable windows in restrooms and keep restroom doors closed (or mostly closed for single restrooms not in use). When possible, keeping conference room doors open can help promote good ventilation.
- Spaces with more limited or no mechanical ventilation may have operable windows left open.
- A process for reporting critical building HVAC issues on the UCR campus continues to remain the same and in place through the UCR Facilities Client Support Services Team. For critical HVAC issues, such as non-operational thermostats or building pressure issues, submit a work order at <https://facilities.ucr.edu/requests>. For general inquiries, email us at facilities@ucr.edu or call (951) 827-4214 during normal business hours (Mon-Fri 8am-5pm).

Facilities Services

How many air changes per hour are in my room?

- Air changes per hour (ACH) is defined as the volume of ventilation air that is supplied and removed from the room every hour. The ventilation air can be through natural or mechanical ventilation systems and helps to remove contaminants from a room.
- The number of air changes per hour in each room in a building can vary throughout campus.
- In general, laboratories are typically supplied with 6-12 air changes per hour, and office areas are typically supplied with 4-8 air changes per hour in accordance with the American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE) standards.
- Occupancy levels are established through each departments [COVID-19 Worksite Specific Plan](#) to allow for sufficient outside air available per occupant.

What is being done to building HVAC in regards to COVID-19?

Facilities Services will be evaluating ventilation systems during preventative maintenance operations in order to ensure that buildings are ready for reoccupation. These evaluations will include, but are not limited to, the following:

- Ensuring fan systems are functional and operating.
- Checking that Central HVAC fan filter efficiencies are maximized and within acceptable operating ranges and replaced as necessary.
- Fan filter racks are inspected for major gaps or damage.
- Occupied/Unoccupied Timeframe: To help with airflow, Facilities Services is ensuring the length of time airflow will circulate throughout each building is increased by starting air handler systems 2 hours prior to normal building occupancy hours and turning off an hour after building occupancy hours.
- Air filter efficiency ratings are selected in accordance with ASHRAE standards based on mechanical capabilities of the system, to provide required fresh air without loss of pressure. MERV 13 or better filters are used whenever possible.

Can I turn on a portable air-conditioning unit or fan when it gets too hot? Can I use or purchase a portable air cleaner or air filter for my area?

- Due to air balancing and electrical capacity, we do not allow portable air conditioners, fans or heaters in mechanically ventilated spaces.
- Portable air cleaners cannot be installed or operated until approved for use by Facilities Services and the Environmental Health and Safety Office. To request an installation, please submit a Facilities Services' [service request](#) with details about your desired equipment. In some cases, it may take 30 days for Facilities Services to evaluate the space and approve or deny the request. Portable air cleaners may be considered in rooms and areas where mechanical and passive ventilation cannot be improved.

Can the building's outdoor air ventilation rate be increased?

- Outside air rates are maximized and set with consideration for air conditioning and contaminant control in accordance with each buildings mechanical design.

Can my building's supply airflow or exhaust airflow be increased or rebalanced?

- Supply and exhaust airflow rates are carefully set with consideration for each locations unique air conditioning and contaminant control requirements in accordance with each buildings mechanical design.

What ventilation is provided in stairwells?

- While some stairwells may have operable windows, stairwells are not provided with mechanical ventilation

What steps will Facilities Services take to reduce risk through building ventilation (HVAC)?

All campus buildings that are open to the public during normal times are safe environments. Some of our buildings are much older and have some limitations. Our buildings are designed to provide sufficient air changes based on building activities. We are making a special effort to ensure that all buildings have current filter changes. The information below is how HVAC systems are maintained.

1. **Expanded Timeframe:** To help with airflow, Facilities Services is expanding the length of time outside airflow will circulate throughout each building.
2. **Filtration Maintenance:** Building filtration systems are well-maintained and have the appropriate level of filters for each building.
3. **Air Flow:** To accommodate efficient airflow in each building, the most advanced level of filters are being used based on the building's air filtration system capabilities.

Building Ventilation

Strict adherence to the public health posters and other visual cues throughout campus and in buildings will reduce transmission risks. Ventilation systems will continue to operate as designed even though building occupancy will be reduced. This will further reduce the risk of potential airborne transmission. While each individual occupant of a campus building will want to make sure these guidelines are followed, including limited occupancy, it will be very important to ensure that all the other occupants in that building, at least on that same floor, coordinate to ensure the overall density and guidelines are being followed on a collective basis.

Facilities Services

Does Facilities Services or Environmental Health & Safety (EH&S) provide cleaning supplies or hand sanitizer?

Yes. We have made disinfecting kits available to departments and hand-sanitizing stations are located at the entrance of each building. A map locating sanitizing stations can be reviewed by clicking, [here](#).

Can I prop open my classroom, office, laboratory door for better building ventilation?

No. For fire prevention and life safety reasons, do not prop open:

- Entry doors
- Fire doors
- Laboratory doors
- Security access doors

