



Air Quality Guidelines

Guiding Principles

These guidelines affirm Harvey Mudd College's commitment to proactively monitoring, managing, and responding to air quality conditions across all campus facilities and outdoor spaces under the College's control.

Through preventive practices, responsive operational measures, and clear communication, the College seeks to:

- Protect the health and safety of faculty, staff, students, and visitors by reducing exposure to harmful airborne pollutants.
- Maintain compliance with applicable building codes, occupational safety requirements, and environmental regulations.
- Promote sustainability through the use of energy-efficient ventilation, filtration, and building system controls.
- Support academic excellence by providing indoor environments that are healthy, comfortable, and conducive to learning, teaching, and research.

Scope

These guidelines apply to all faculty, staff, students, and campus occupants and establish expectations for air-quality monitoring, operational response, and communication during routine conditions and air-quality events. They also emphasize continuous improvement through stakeholder feedback, data collection, and emerging technologies.

Definitions

Air Quality (AQI)

Air quality refers to the condition of the air within and surrounding campus buildings, as determined by the presence and concentration of airborne pollutants and particulates that may affect human health, comfort, and performance. Air quality may be influenced by both indoor sources (such as building materials, cleaning products, and HVAC system performance) and outdoor sources (such as vehicle emissions, wildfire smoke, and industrial pollutants). See **Table 1 - U.S. Environmental Protection Agency (EPA) Air Quality Index (AQI)** for further information.

Particulates

Particulates are a mixture of small solid particles and liquid droplets suspended in the air. They vary in size and composition and may include dust, dirt, soot, smoke, and microscopic droplets. Health impacts are largely dependent on particle size and the depth to which particles can penetrate the respiratory system.

PM_{2.5} refers to fine inhalable particles with diameters of 2.5 micrometers or smaller. These particles pose heightened health risks because they can penetrate deep into the lungs and, in some cases, enter the bloodstream.

Sensitive Groups

Sensitive groups include individuals who may experience adverse health effects when exposed to elevated particulate levels. This may include individuals with respiratory or cardiovascular conditions (such as asthma, COPD, or heart disease), older adults, young children, pregnant individuals, and those advised by healthcare providers to limit exposure to reduced air quality.

Air Quality Monitoring and Response

Facilities and Maintenance (F&M) is responsible for ongoing monitoring of outdoor and indoor air quality using regional air-quality data, building automation systems, and installed campus sensors as available.

When air quality conditions indicate an increased potential for health impacts, the College's response will be guided by the Purple Air Sensors installed around campus and the Purple Air Website, and the College will implement some a combination of the following measures, as appropriate to the circumstances:

- Communicating air-quality information and guidance to faculty, staff, and students.
- Advising campus occupants to close windows and doors to reduce the introduction of outdoor air.
- Adjusting building ventilation systems to limit outdoor air intake while maintaining safe indoor conditions.
- Deploying portable air scrubbers and HEPA filtration units in selected indoor spaces.
- Making KN95 or N95 respirators available for voluntary use.
- Relocating classes, events, or activities to indoor spaces when feasible.
- Modifying or suspending outdoor activities, including athletics and events.
- Considering academic or workplace accommodations for individuals who may be affected.
- Reassigning essential staff duties or approving alternative work arrangements when outdoor work is required and indoor reassignment is not feasible.

Decisions regarding broader operational changes, including curtailment of classes or campus operations, will be made in consultation with senior leadership and relevant stakeholders.

Roles and Responsibilities

Facilities and Maintenance (F&M)

- Monitor outdoor air quality using Purple Air Website or other applicable data sources.
- Monitor indoor air quality using building automation systems and campus sensors as available and as conditions warrant.
- Adjust ventilation and building system operations to mitigate the impact of poor outdoor air quality.
- Deploy air scrubbers and HEPA filtration units where appropriate.
- Maintain and distribute KN95 and/or N95 respirators for voluntary use.
- Provide operational support during air-quality events.

Emergency Preparedness and Safety Team (EPST)

- Maintain and update air-quality-related information
- Provide guidance related to outdoor activities during periods of elevated air-quality concern.

Office of Communications and Marketing

- In coordination with the EPST, activate emergency or alert messaging on the College's website and communication channels when warranted by conditions.

Event Staff and Area VPs

- Faculty and staff responsible for organizing or leading events should consult with the appropriate area Vice President to determine whether events should be modified, relocated, or canceled based on prevailing air-quality conditions.

Department of Student Affairs

- Provide guidance to students regarding indoor spaces equipped with air-quality mitigation measures when needed.

Senior Vice President, VP for Academic Affairs and Dean of the Faculty, and VP for Student Affairs and Dean of Students

- Assess when it may be appropriate to modify academic operations.
- In consultation with Cabinet members and other stakeholders, determine whether to issue campus-wide communications, curtail campus operations, or direct faculty, staff, and students to appropriate on-campus spaces.

Proactive Monitoring

Facilities and Maintenance conducts proactive air-quality monitoring at intervals appropriate to prevailing conditions. This monitoring supplements data gathered from community-based sensors as they are deployed across campus and supports timely operational and communication decisions.

Communication

If you believe your room may have unsafe air quality, please contact Facilities and Maintenance. The department maintains portable air-quality sensors that can be deployed to monitor carbon dioxide (CO₂) levels and airborne particulates. These sensors also provide automated alerts to Facilities and Maintenance if elevated levels are detected. When air-quality thresholds are exceeded, Facilities and Maintenance can assess the situation and provide guidance on appropriate next steps to restore safe and acceptable conditions.

Table 1 - U.S. Environmental Protection Agency (EPA) Air Quality Index (AQI)

AQI Basics for Ozone and Particle Pollution			
Daily AQI Color	Levels of Concern	Values of Index	Description of Air Quality
Green	Good	0 - 50	Air quality is satisfactory, and air pollution poses little or no risk.
Yellow	Moderate	51 - 100	Air quality is acceptable. However, there may be a risk for some people, particularly those who are unusually sensitive to air pollution.
Orange	Unhealthy for Sensitive Groups	101 -150	Members of sensitive groups may experience health effects. The general public is less likely to be affected.
Red	Unhealthy	151 - 200	Some members of the general public may experience health effects; members of sensitive groups may experience more serious health effects.
Purple	Very Unhealthy	201 - 300	Health alert: The risk of health effects is increased for everyone.
Maroon	Hazardous	301 and higher	Health warning of emergency conditions: everyone is more likely to be affected.

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