

DAWSON HALL (1010)

The original section of Dawson Hall is served by separate air distribution systems for space conditioning and ventilation. Fan Coil Units (FCUs) located in the above ceiling plenum space throughout the building provide heating and cooling to individual spaces within Dawson Hall. Ventilation is provided by way of a central Ventilation Air System located in the attic which distributes fresh outdoor air throughout the building.

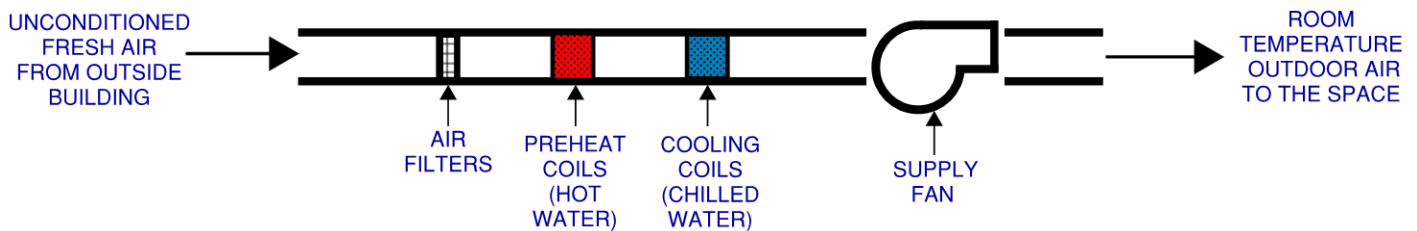
The Speirs Hall addition was built in the 1940s and has FCUs for space heating and cooling throughout. Fresh air is drawn in through passive vents above the ceiling for each level to replace air exhausted through fume hoods and other exhaust fans throughout the building.

Lab 169 in Speirs was recently renovated and includes a dedicated ventilation air unit to provide make up air for the kitchen exhaust hoods in the cooking lab space.

VENTILATION SYSTEM

The ventilation system can be thought of as a whole-building fresh air system that brings in outside air, filters, dehumidifies and conditions it to a moderate temperature, and distributes it directly to each classroom and office. Heating is provided by a heating hot water loop with the heat coming from a steam to water heat exchanger and steam from the central campus steam system. Cooling is provided by chilled water from the campus chilled water loop system.

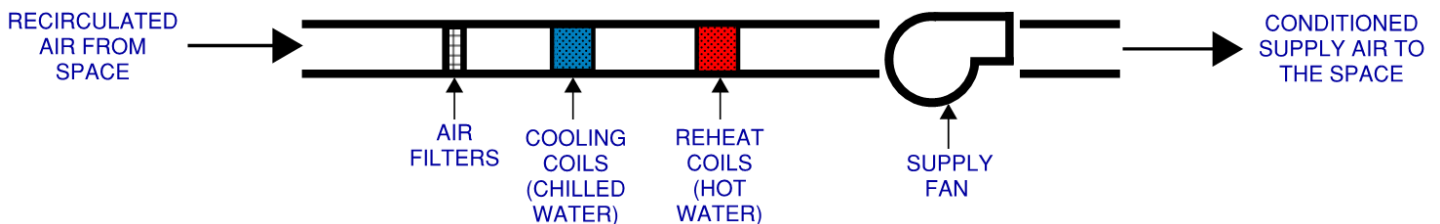
The ventilation air unit is provided with an occupancy based operating schedule that is currently set to operate continuously as part of FMD's COVID-19 response program.



VENTILATION AIR UNIT SCHEMATIC

SPACE HEATING AND COOLING SYSTEM

Fan coil units (FCUs) that were installed in 1977 provide space heating and cooling throughout Dawson Hall. FCUs filter and recirculate air in their respective spaces and either cool or heat the air as needed using central chilled water and hot water. Fresh air is provided to each FCU from the Central Ventilation Air Unit where it is mixed with recirculated air from the above ceiling plenum before being conditioned by each FCU. The individual Fan Coil Units serve individual rooms or small groups of adjacent rooms via supply ductwork above the ceiling.



4-PIPE FAN COIL UNIT SCHEMATIC