

## **GEOGRAPHY /GEOLOGY BUILDING**

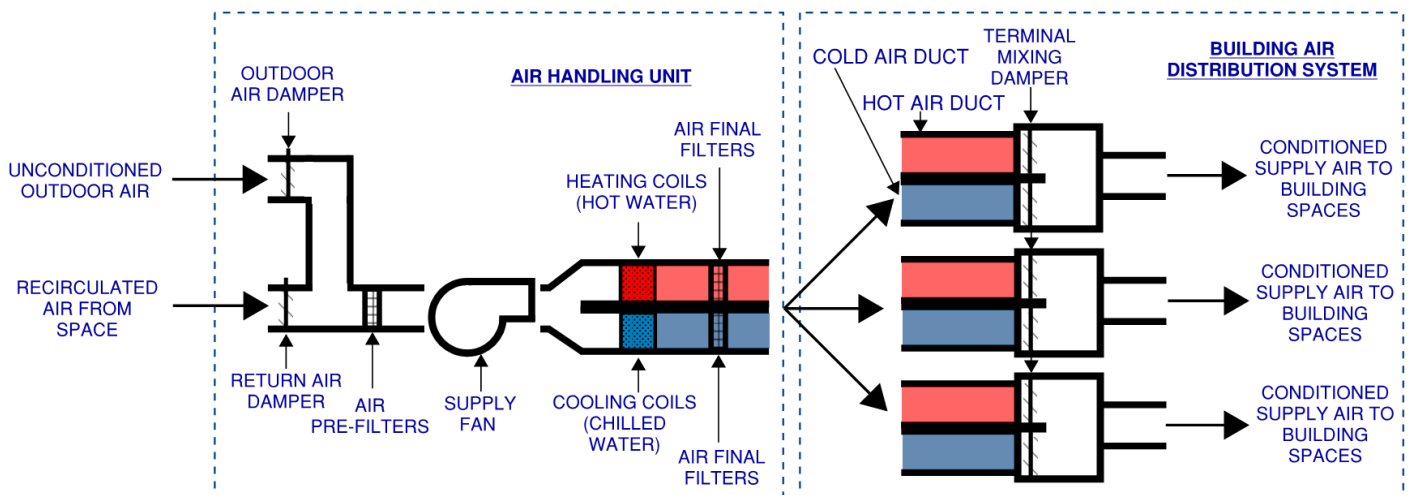
The Geography/Geology Building was constructed in 1957 to support the Geography, Geology and Mathematics Departments. The building is served by a dual ductwork system which provides ventilation, cooling, heating and air filtration and distribution functions for the building. The air handling unit delivers a constant volume of heated air and cooled air simultaneously through a hot deck and cold deck within the unit which comes from a mixture of recirculated building air and fresh air from outside of the building.

### **DUAL DUCT AIR HANDLING SYSTEM**

Air is recirculated from the spaces back to the air handling unit through ceiling mounted air return registers located in each space. Recirculated air from the spaces is then drawn through ductwork to the central AHU where it is mixed with outdoor air, filtered and conditioned with hot water and chilled water coils before being supplied back to the building. Exhaust is provided in restrooms on each floor to remove odors and to maintain a slightly positive building pressure.

Space heating and cooling is provided by duct mounted mixing boxes in supply ductwork throughout the building. The dual duct mixing boxes blend hot and cold air from the hot air duct and cold air duct supplied by the central AHU to provide either heating or cooling to the spaces served by each mixing box based on space temperatures.

Chilled water is supplied throughout the building from a chiller located in the mechanical room or from the campus chilled water system. Heating hot water, distributed throughout the building for heating, is provided by a steam to water heat exchanger using steam from the campus steam system.



**DUAL DUCT AIR HANDLING SYSTEM SCHEMATIC**